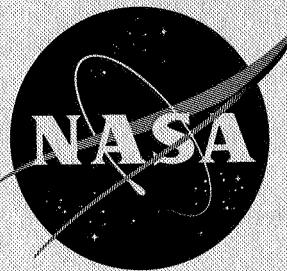


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PRESSURE DISTRIBUTIONS AT MACH NUMBERS FROM 1.6 TO 2.8
OF 74° SWEPT ARROW WINGS WITH AND
WITHOUT CAMBER AND TWIST

By Dennis F. Hasson, Ann B. Fichter, and Norman Wong

Langley Research Center
Langley Field, Va.

N 68 - 83471

FACILITY FORM 602	(ACCESSION NUMBER)	(THRU)
	(PAGES)	(CODE)
	(NASA CR OR TMX OR AD NUMBER)	(CATEGORY)

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January 1960

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TECHNICAL MEMORANDUM X-190

PRESSURE DISTRIBUTIONS AT MACH NUMBERS FROM 1.6 TO 2.8

OF 74° SWEPT ARROW WINGS WITH AND

WITHOUT CAMBER AND TWIST*

By Dennis F. Hasson, Ann B. Fichter, and Norman Wong

SUMMARY

An investigation has been conducted to obtain the pressure distribution on a cambered and twisted arrow wing and an uncambered and untwisted arrow wing. The cambered and twisted wing was designed to give a high value of maximum lift-drag ratio at a lift coefficient of 0.1 and at a Mach number of 2.5. Both wings had 74° of leading-edge sweep, an aspect ratio of 1.6, a taper ratio of 0, and a notch ratio of 0.714. A 3-percent streamwise biconvex thickness distribution was centered on the mean-camber surface of both wings.

Tests were conducted at Mach numbers from 1.6 to 2.8 through a range of angle of attack from -9° to 3° for the cambered and twisted wing and from -3° to 9° for the uncambered and untwisted wing. The Reynolds number based on the mean aerodynamic chord was 2.0×10^6 for all tests.

The experimental chordwise pressure distributions for both wings corresponding to the design lift coefficient of 0.1 and design Mach number of 2.5 were in fair agreement with theory at the inboard spanwise stations. At the more outboard stations, this agreement decreased.

INTRODUCTION

Current interest in the development of airplane configurations having long-range capabilities at supersonic speeds has resulted in extensive investigation of arrangements designed to produce high values of maximum lift-drag ratio. One approach to this problem has been the utilization of camber and twist because of the substantial gains indicated by theory. For example, the configuration of reference 1, designed

*Title, Unclassified.

for a Mach number of 2.5, incorporated a cambered and twisted arrow wing with 74° of sweep and a subsonic leading edge and was designed to give minimum induced drag at a lift coefficient of 0.1. The camber and twist for that configuration were dictated by the methods of reference 2, and an improvement in lift-drag ratio at the design Mach number and lift coefficient over a similar uncambered and untwisted wing was expected. At the design Mach number of 2.5, the experimental maximum lift-drag ratio, however, was below that predicted by theory by about 13 percent. This experimental difference in **maximum** lift-drag ratio was attributed to the existence of supercritical flow ($M > 1$ perpendicular to leading edge) on the upper surface of the wing, which produced large regions of flow separation.

Since an examination of the differences in the theoretical and experimental loadings at the design lift coefficient of 0.1 and the design Mach number of 2.5 would provide a further insight into why the wing did not perform as anticipated, pressure distributions were obtained on the cambered and twisted wing. Pressure distributions were also obtained at off-design conditions to provide loading information about a wing of this type.

A wing without camber and twist was also tested to obtain loading information about a wing of the same plan form and airfoil-thickness ratio. This information would also provide a comparison of pressure distributions between arrow wings with and without camber and twist.

The results of this investigation are presented herein with limited analysis.

SYMBOLS

The reference centers and reference planes are shown in figure 1.

$b/2$	semispan, in.
c	local chord, in.
\bar{c}	mean aerodynamic chord, in.
C_N	normal-force coefficient, $\frac{\text{Normal force}}{qS}$
C_p	pressure coefficient, $\frac{p_{\text{local}} - p}{P}$
M	free-stream Mach number



p	free-stream static pressure, lb/sq ft
q	free-stream dynamic pressure, $0.7pM^2$, lb/sq ft
R	Reynolds number, $\rho V \bar{c} / \mu$
S	total wing area, sq ft
V	free-stream velocity, ft/sec
L	distance from nose of wing in streamwise direction, in.
5	
5	
9	
x	distance perpendicular to center line, in.
y	
a	angle of attack of reference plane, deg
μ	free-stream viscosity of air, slugs/ft-sec
ρ	free-stream density of air, slugs/cu ft

MODELS AND APPARATUS

Dimensional details and photographs of the models tested are presented in figures 1 and 2. The geometric characteristics of the model are given in table I. The ordinates of the mean-camber surface for the cambered and twisted wing as determined by the method of reference 2 are given in table 11.

A 3-percent streamwise biconvex thickness distribution was centered on the mean surface given in table II. The wing without camber and twist had 3-percent streamwise biconvex sections. The latter wing is referred to as the "flat wing" throughout the remainder of the text.

In order to provide a housing for the balance and scanning-type pressure-sampling valve in the models (fig. 3), it was necessary to add small cone-cylinder bodies. The cones originated at the wing apexes and had an included angle of 90° . The body for the flat wing was placed on the center line of the wing, and the body for the cambered and twisted wing was placed below the wing with the cone tip faired into the lower surface of the wing.

The pressures on the wings were measured by means of a scanning-type pressure-sampling valve, which is a device for sequentially connecting pressure tubes to a pressure transducer. The pressures measured by the transducer are converted to an electric signal which is sent to an oscillograph recorder and is recorded photographically. The transducer





used in these tests was a gage which measured pressures up to 25 pounds per square inch absolute. The pressures on the models were measured at 32 points on the upper surface of the right wing semispan and at 14 points on the lower surface of the left wing semispan as shown in figure 4.

Normal force on the model was measured by means of an internal strain-gage balance. This balance was attached, by means of a sting, to the tunnel central support system.

The tests were conducted in the low Mach number test section of the Langley Unitary Plan wind tunnel, which is a variable-pressure, continuous-flow tunnel. The test section is 4 feet square and approximately 7 feet in length and is equipped with an asymmetric sliding-block type nozzle which allows a continuous variation in Mach numbers from 1.57 to 2.87.

TESTS

The tests were conducted with fixed transition at a Reynolds number based on \bar{c} of 2.0×10^6 , a dewpoint of $< -30^\circ$ F, and an angle-of-attack range of -9° to 9° . The test conditions which varied with Mach number are as follows:

Mach number	Stagnation pressure, lb/sq in. abs	Dynamic pressure, lb/sq ft	Stagnation temperature, °F
1.60	5.8	355	125
2.02	6.8	347	125
2.36	8.5	348	150
2.50	9.1	336	150
2.65	9.9	324	150
2.80	10.7	312	150

The transition strips consisted of bands of sand 1/32 inch wide applied at 10 percent of the local streamwise chord on the wing with a density of 100 grains per square inch. The grain size was 0.009 inch to 0.011 inch.

The flow-visualization technique utilized a fluorescent oil painted on the wing surface. A description of this technique is given in reference 3. The photographs (fig. 5) of the upper surface of the cambered and twisted wing were made with the tunnel in operation, and indicate areas of attached and separated flow as well as the airflow direction at the surface.



CORRECTIONS AND ACCURACY

The maximum deviation of local Mach number in the part of the tunnel occupied by the model is ± 0.015 from the average value given. The pressure gradients are sufficiently small to require no buoyancy correction.

The average angularity of the flow in the region of the model was determined by comparing inverted and upright runs and the angle of attack was corrected accordingly. The angles of attack and sideslip have been corrected for sting-balance deflection.

Based upon balance accuracy, scanning-type pressure-sampling valve accuracy, and the method of data reduction for the pressures, it is estimated that the coefficients are accurate within the following limits:

C_N	± 0.006
C_p	± 0.005
a , deg	0.1

PRESENTATION OF RESULTS

A plot of pressure distribution on the arrow-wing model with 74° of sweep is presented in figure 6 at a Mach number of 2.50. Tables III and IV give the pressure distributions for the model with a cambered and twisted wing and a flat wing, respectively.

DISCUSSION OF RESULTS AT THE DESIGN CONDITIONS

Cambered and Twisted Wing

The experimental chordwise pressure distribution corresponding to the design lift coefficient of 0.1 and the design Mach number of 2.5 is shown in figure 6(a). The theoretical pressure distributions in figure 6(a) correspond to the pressure distribution given by the method of reference 2 plus the pressure due to wing thickness. The experimental chordwise pressure distributions at the inboard spanwise stations on the upper surface show a fair agreement with theory. At the spanwise station of $\frac{y}{b/2} = 0.2$, the orifice near the leading edge on the upper surface indicates that the high theoretical negative pressure was almost attained; thus, some possible so-called leading-edge suction was insured. The agreement between theory and experiment decreases with increasing spanwise



station going outboard. The flow separation which exists at the tips at the design condition is seen in figure 5(a). It may be noted by an examination of table III(d) for $\alpha = 0.1^\circ$ and $C_N = 0.1130$ that the pressure coefficients along the leading edge exceed the theoretical pressure coefficient of -0.063 corresponding to a Mach number of 1.0 perpendicular to the leading edge. Thus, supercritical flow ($M > 1$) exists on the upper surface of the wing as surmised in reference 1.

Flat Wing

The experimental chordwise pressure distribution corresponding to a lift coefficient of 0.1 at a Mach number of 2.5 is shown in figure 6(b). The theoretical pressure distribution shown in figure 6(b) is for the pressure distribution due to angle of attack with the pressure due to thickness superimposed. At the most inboard spanwise station ($\frac{y}{b/2} = 0.2$), excellent agreement between theory and experiment along the chord is obtained on the upper surface. The orifice near the leading edge on the upper surface also indicates a high negative pressure was obtained, and consequently some so-called leading-edge suction could be realized.

CONCLUSIONS

The experimental chordwise pressure distributions for both wings corresponding to the design lift coefficient of 0.1 and the design Mach number of 2.5 were in fair agreement with theory at the inboard stations. At the more outboard stations, this agreement decreased.

Langley Research Center,
National Aeronautics and Space Administration,
Langley Field, Va., August 26, 1959.



REFERENCES

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2. Ginzel, I., and Multhopp, H.: Wings With Minimum Induced Drag in Supersonic Flow. Eng. Rep. No. 9937-M, The Glenn L. Martin Co., Aug. 1957.
3. Loving, Donald L., and Katzoff, S.: Fluorescent-Oil Film Method and Other Techniques for Boundary-Layer Flow Visualization. NASA MEMO 3-17-59L, 1959.



TABLE I.- GEOMETRIC CHARACTERISTICS OF THE MODELS

Bodies :

Length, in.:

For flat arrow wing	24.238
For cambered and twisted arrow wing	24.409
Diameter, in.	2.000
Forebody total cone angle, deg	9
Base area, sq in.	3.14

Wings :

Area, sq ft	1.500
Span, in.	18.588
Aspect ratio	1.6
Taperratio	0
Sweepback of leading edge, $\tan^{-1} 3.5$, deg	≈ 74.05
Sweepback of trailing edge, deg	45
Total length in streamwise direction from nose to wing tip, in	32.532
Mean aerodynamic chord, in.	15.492
Mean-aerodynamic-chord location, in.:	
Lateral location	3.096
Longitudinal location from nose	10.836
Notch ratio, <u>Theoretical root chord, in.</u>	0.714
Total length of wing, in.	

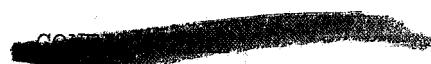
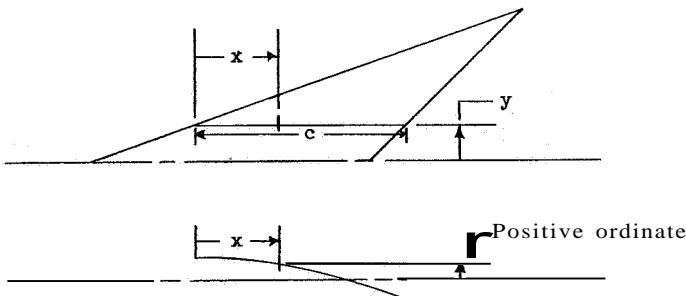


TABLE II.- ORDINATES OF THE WING MEAN CAMBER SURFACE



Chordwise station, x, percent c	Ordinates, percent c									
	Spanwise location of chord, y, percent b/2									
	0	10	20	30	40	50	60	70	80	90
0	0.0911	0.0514	0.0343	0.0264	0.0205	0.0151	0.0110	0.0076	0.0013	-0.0065
5	.0801	.0476	.0334	.0264	.0211	.0164	.0130	.0103	.0060	-.0009
10	.0695	.0434	.0317	.0256	.0209	.0169	.0141	.0120	.0090	.0034
15	.0593	.0387	.0293	.0240	.0200	.0166	.0144	.0128	.0110	.0065
20	.0495	.0338	.0263	.0219	.0184	.0157	.0139	.0128	.0118	.0086
25	.0401	.0285	.0228	.0192	.0164	.0142	.0128	.0119	.0116	.0090
30	.0311	.0230	.0189	.0160	.0138	.0121	.0111	.0105	.0105	.0086
35	.0226	.0174	.0145	.0124	.0108	.0096	.0088	.0085	.0086	.0073
40	.0146	.0116	.0099	.0085	.0075	.0066	.0062	.0059	.0062	.0052
45	.0070	.0058	.0051	.0044	.0038	.0034	.0032	.0032	.0032	.0026
50	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
55	-.0065	-.0057	-.0051	-.0045	-.0039	-.0036	-.0034	-.0033	-.0034	-.0030
60	-.0125	-.0113	-.0102	-.0090	-.0080	-.0073	-.0069	-.0066	-.0069	-.0065
65	-.0179	-.0168	-.0153	-.0135	-.0120	-.0110	-.0104	-.0099	-.0105	-.0095
70	-.0227	-.0220	-.0202	-.0178	-.0159	-.0146	-.0138	-.0132	-.0138	-.0129
75	-.0269	-.0269	-.0250	-.0221	-.0197	-.0182	-.0170	-.0162	-.0166	-.0155
80	-.0306	-.0314	-.0294	-.0260	-.0233	-.0214	-.0201	-.0189	-.0191	-.0176
85	-.0336	-.0355	-.0335	-.0296	-.0266	-.0244	-.0227	-.0211	-.0211	-.0194
90	-.0359	-.0392	-.0371	-.0330	-.0295	-.0271	-.0250	-.0230	-.0222	-.0202
95	-.0376	-.0424	-.0403	-.0357	-.0321	-.0293	-.0268	-.0241	-.0226	-.0207
100	-.0386	-.0449	-.0429	-.0380	-.0341	-.0311	-.0280	-.0247	-.0219	-.0202

TABLE III. - PRESSURE DISTRIBUTIONON A 74° SWEPT CAMBERED AND TWISTED ARROW WING MODEL

(a) $M = 1.60$ $\alpha = -8.1; C_N = -0.1315$

$y/b/2$	x/c	C_p
Upper surface		
Lower surface		
.120	.040	.0868
.120	.186	.0683
.120	.364	.0496
.120	.485	.0444
.120	.700	.0266
.120	.943	.0275
.202	.051	.0810
.202	.252	.0686
.202	.375	.0336
.202	.614	.0215
.202	.886	.0329
.300	.074	.1218
.300	.214	.0716
.300	.494	.0236
.300	.649	.0266
.300	.796	.0290
.399	.165	.0644
.399	.323	.0381
.399	.677	.0127
.399	.886	.0248
.499	.084	.0898
.499	.302	.0526
.499	.509	.0187
.499	.763	.0254
.599	.261	.0496
.599	.573	.0051
.599	.897	.0299
.699	.262	.0508
.699	.694	.0199
.799	.286	.0175
.799	.774	.0523
.896	.452	.0490

 $\alpha = -5.8; C_N = -0.0541$

$y/b/2$	x/c	C_p
Upper surface		
Lower surface		
.120	.040	.0472
.120	.186	.0460
.120	.364	.0267
.120	.485	.0188
.120	.700	.0096
.120	.943	.0093
.202	.051	.0549
.202	.252	.0448
.202	.375	.0111
.202	.614	.0032
.202	.886	.0145
.300	.074	.0922
.300	.214	.0368
.300	.494	.0004
.300	.649	-.0075
.300	.796	.0035
.399	.165	.0322
.399	.323	.0093
.399	.677	-.0094
.399	.886	.0041
.499	.084	.0616
.499	.302	.0154
.499	.509	-.0198
.499	.763	-.0017
.599	.261	.0059
.599	.573	-.0262
.599	.897	.0035
.699	.262	.0120
.699	.694	-.0161
.799	.286	-.0317
.799	.774	.0123
.896	.452	-.0082



TABLE III. - PRESSURE DISTRIBUTION ON A 74° SWEPT CAMBERED AND TWISTED ARROW WING MODEL - Continued

(a) M = 1.60 - Continued

 $\alpha = -4.7; C_N = -0.0137$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Upper surface		
.120	.040	.0392
.120	.186	.0243
.120	.364	-.0091
.120	.485	-.0084
.120	.700	-.0097
.120	.943	-.0013
.202	.051	.0302
.202	.252	.0231
.202	.375	-.0115
.202	.614	-.0156
.202	.886	-.0050
.300	.074	.0562
.300	.214	.0113
.300	.494	-.0214
.300	.649	-.0196
.300	.796	-.0097
.399	.165	.0089
.399	.323	-.0174
.399	.677	-.0304
.399	.886	-.0168
.499	.084	.0317
.499	.302	-.0193
.499	.509	-.0397
.499	.763	-.0230
.599	.261	-.0236
.599	.573	-.0474
.599	.897	-.0171
.699	.262	-.0258
.699	.694	-.0412
.799	.286	-.0777
.799	.774	-.0186
.896	.452	-.0514

Lower surface

.119	.040	.0707
.119	.367	.0741
.119	.700	-.0202
.119	.944	-.0601
.298	.072	.0877
.298	.492	-.0106
.298	.798	-.0428
.499	.084	-.0418
.499	.507	-.0165
.499	.761	-.0548
.596	.269	-.0190
.596	.580	-.0217
.701	.257	-.0663
.801	.768	-.1278

 $\alpha = -3.5; C_N = 0.0207$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Upper surface		
.120	.040	-.0112
.120	.186	.0063
.120	.364	-.0014
.120	.485	-.0131
.120	.700	-.0241
.120	.943	-.0189
.202	.051	.0063
.202	.252	.0060
.202	.375	-.0253
.202	.614	-.0300
.202	.886	-.0201
.300	.074	.0383
.300	.214	-.0063
.300	.494	-.0420
.300	.649	-.0374
.300	.796	-.0235
.399	.165	-.0115
.399	.323	-.0416
.399	.677	-.0493
.399	.886	-.0318
.499	.084	.0030
.499	.302	-.0426
.499	.509	-.0620
.499	.763	-.0444
.599	.261	-.0475
.599	.573	-.0764
.599	.897	-.0352
.699	.262	-.0515
.699	.694	-.0613
.799	.286	-.1195
.799	.774	-.0466
.896	.452	-.1047

Lower surface

.119	.040	.0848
.119	.367	.0811
.119	.700	-.0155
.119	.944	-.0552
.298	.072	.1069
.298	.492	-.0027
.298	.798	-.0364
.499	.084	-.0078
.499	.507	-.0047
.499	.761	-.0469
.596	.269	.0072
.596	.580	-.0097
.701	.257	-.0014
.801	.768	-.1118

TABLE III. - PRESSURE DISTRIBUTION ON A 74° SWEPT CAMBERED AND TWISTED ARROW WING MODEL - Continued

(a) $M = 1.60$ - Continued $\alpha = -2.4; C_N = 0.0545$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
-----------------	---------------	-------

Upper surface

.120		
.120		
.120		
.120	.485	-.0118
.120		
.120	.700	-.0267
.120	.943	-.0284
.202	.051	-.0226
.202	.252	-.0084
.202	.375	-.0361
.202	.614	-.0404
.202	.886	-.0318
.300	.074	.0097
.300	.214	-.0284
.300	.494	-.0543
.300	.649	-.0509
.300	.796	-.0374
.399	.165	-.0457
.399	.323	-.0632
.399	.677	-.0620
.399	.886	-.0472
.499	.084	-.0334
.499	.302	-.0641
.499	.509	-.0816
.499	.763	-.0549
.599	.261	-.0795
.599	.573	-.0955
.599	.897	-.0527
.699	.262	-.0903
.699	.694	-.0869
.799	.286	-.1465
.799	.774	-.0749
.896	.452	-.1622

Lower surface

.119	.040	.1014
.119	.367	.0900
.119	.700	-.0020
.119	.944	-.0466
.298	.072	.1081
.298	.492	.0100
.298	.798	-.0229
.499	.084	.0149
.499	.507	.0020
.499	.761	-.0352
.596	.269	.0202
.596	.580	.0017
.701	.257	.0106
.801	.768	-.0980

 $\alpha = -1.3; C_N = 0.0884$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
-----------------	---------------	-------

Upper surface

.120	.040	-.0611
.120	.186	-.0288
.120	.364	-.0208
.120	.485	-.0282
.120	.700	-.0445
.120	.943	-.0374
.202	.051	-.0596
.202	.252	-.0199
.202	.375	-.0504
.202	.614	-.0572
.202	.886	-.0513
.300	.074	-.0162
.300	.214	-.0356
.300	.494	-.0639
.300	.649	-.0618
.300	.796	-.0501
.399	.165	-.0578
.399	.323	-.0784
.399	.677	-.0759
.399	.886	-.0608
.499	.084	-.0688
.499	.302	-.0873
.499	.509	-.0993
.499	.763	-.0722
.599	.261	-.1135
.599	.573	-.1095
.599	.897	-.0645
.699	.262	-.1424
.699	.694	-.1092
.799	.286	-.2160
.799	.774	-.1082
.896	.452	-.2493

Lower surface

.119	.040	.1178
.119	.367	.1020
.119	.700	.0060
.119	.944	-.0399
.298	.072	.1248
.298	.492	.0195
.298	.798	-.0165
.499	.084	.0300
.499	.507	.0189
.499	.761	-.0236
.596	.269	.0386
.596	.580	.0158
.701	.257	.0278
.801	.768	-.0799

TABLE III. - PRESSURE DISTRIBUTION ON A 74° SWEPT CAMBERED AND TWISTED ARROW WING MODEL - Continued

(a) $M = 1.60$ - Concluded

L-559

$\alpha = -0.1; C_N = 0.1277$			$\alpha = 1.0; C_N = 0.1662$		
$y/b/2$	x/c	C_p	$y/b/2$	x/c	C_p
Upper surface			Upper surface		
Upper surface			Upper surface		
.120	.040	-.0973	.120	.040	-.1176
.120	.186	-.0383	.120	.186	-.0780
.120	.364	-.0383	.120	.364	-.0429
.120	.485	-.0450	.120	.485	-.0503
.120	.700	-.0620	.120	.700	-.0690
.120	.943	-.0518	.120	.943	-.0586
.202	.051	-.1290	.202	.051	-.1628
.202	.252	-.0266	.202	.252	-.0506
.202	.375	-.0610	.202	.375	-.0641
.202	.614	-.0672	.202	.614	-.0733
.202	.886	-.0613	.202	.886	-.0681
.300	.074	-.0896	.300	.074	-.1327
.300	.214	-.0743	.300	.214	-.1222
.300	.494	-.0847	.300	.494	-.0832
.300	.649	-.0844	.300	.649	-.0814
.300	.796	-.0644	.300	.796	-.0703
.399	.165	-.1066	.399	.165	-.1653
.399	.323	-.0936	.399	.323	-.1484
.399	.677	-.0893	.399	.677	-.0976
.399	.886	-.0746	.399	.886	-.0782
.499	.084	-.1379	.499	.084	-.1662
.499	.302	-.1241	.499	.302	-.1702
.499	.509	-.1324	.499	.509	-.1881
.499	.763	-.1038	.499	.763	-.1970
.599	.261	-.1386	.599	.261	-.1755
.599	.573	-.1342	.599	.573	-.1847
.599	.897	-.0921	.599	.897	-.1235
.699	.262	-.1921	.699	.262	-.2311
.699	.694	-.1401	.699	.694	-.2413
.799	.286	-.2591	.799	.286	-.2444
.799	.774	-.1259	.799	.774	-.2102
.896	.452	-.3173	.896	.452	-.1469
Lower surface			Lower surface		
Lower surface			Lower surface		
.119	.040	.1364	.119	.040	.1448
.119	.367	.1088	.119	.367	.1232
.119	.700	.0177	.119	.700	.0291
.119	.944	-.0290	.119	.944	-.0183
.298	.072	.1263	.298	.072	.1432
.298	.492	.0359	.298	.492	.0460
.298	.798	-.0060	.298	.798	.0063
.499	.084	.0433	.499	.084	.0583
.499	.507	.0266	.499	.507	.0374
.499	.761	-.0115	.499	.761	.0036
.596	.269	.0500	.596	.269	.0580
.596	.580	.0288	.596	.580	.0417
.701	.257	.0509	.701	.257	.0608
.801	.768	-.0595	.801	.768	-.0457

TABLE III. - PRESSURE DISTRIBUTIONON A 74° SWEPT CAMBERED AND TWISTED ARROW WING MODEL - Continued

(b) $M = 2.02$ $\alpha = -8.7; C_N = -0.1264$ $\alpha = -6.5; C_N = -0.0603$

$y/b/2$	x/c	C_p
---------	-------	-------

Upper surface

.120	.040	.0949
.120	.186	.0747
.120	.364	.0538
.120	.485	.0462
.120	.700	.0355
.120	.943	.0374
.202	.051	.0914
.202	.252	.0681
.202	.375	.0428
.202	.614	.0311
.202	.886	.0371
.300	.074	.1145
.300	.214	.0747
.300	.494	.0282
.300	.649	.0317
.300	.796	.0333
.399	.165	.0848
.399	.323	.0459
.399	.677	.0257
.399	.886	.0323
.499	.084	.1085
.499	.302	.0633
.499	.509	.0314
.499	.763	.0264
.599	.261	.0655
.599	.573	.0188
.599	.897	.0387
.699	.262	.0646
.699	.694	.0242
.799	.286	.0355
.799	.774	.0431
.896	.452	.0352

$y/b/2$	x/c	C_p
---------	-------	-------

Upper surface

.120	.040	.0658
.120	.186	.0466
.120	.364	.0286
.120	.485	.0192
.120	.700	.0094
.120	.943	.0094
.202	.051	.0620
.202	.252	.0343
.202	.375	.0119
.202	.614	.0021
.202	.886	.0088
.300	.074	.0819
.300	.214	.0403
.300	.494	-.0039
.300	.649	.0027
.300	.796	.0031
.399	.165	.0478
.399	.323	.0138
.399	.677	-.0029
.399	.886	.0027
.499	.084	.0711
.499	.302	.0201
.499	.509	-.0061
.499	.763	-.0036
.599	.261	.0213
.599	.573	-.0152
.599	.897	.0065
.699	.262	.0239
.699	.694	-.0111
.799	.286	-.0111
.799	.774	-.0007
.896	.452	-.0247

Lower surface

.119	.040	.0320
.119	.367	.0320
.119	.700	-.0495
.119	.944	-.0716
.298	.072	-.0984
.298	.492	-.0311
.298	.798	-.0659
.499	.084	-.1060
.499	.507	-.1569
.499	.761	-.1300
.596	.269	-.1348
.596	.580	-.1515
.701	.257	-.1506
.801	.768	-.1752

Lower surface

.119	.040	.0425
.119	.367	.0474
.119	.700	-.0351
.119	.944	-.0597
.298	.072	-.0524
.298	.492	-.0247
.298	.798	-.0533
.499	.084	-.0637
.499	.507	-.0609
.499	.761	-.0448
.596	.269	-.0978
.596	.580	-.0852
.701	.257	-.1148
.801	.768	-.1523

TABLE III. - PRESSURE DISTRIBUTION ON A 74° SWEPT CAMBERED AND TWISTED ARROW WING MODEL - Continued

(b) $M = 2.02$ - Continued $\alpha = -5.3; C_N = -0.0268$ $\alpha = -4.2; C_N = 0.0059$

$y/b/2$	x/c	C_p
Upper surface		
.120	.040	.0475
.120	.186	.0285
.120	.364	.0138
.120	.485	.0078
.120	.700	-.0054
.120	.943	-.0032
.202	.051	.0446
.202	.252	.0210
.202	.375	-.0038
.202	.614	-.0089
.202	.886	-.0032
.300	.074	.0639
.300	.214	.0232
.300	.494	-.0152
.300	.649	-.0149
.300	.796	-.0089
.399	.165	.0270
.399	.323	-.0076
.399	.677	-.0233
.399	.886	-.0120
.499	.084	.0550
.499	.302	.0012
.499	.509	-.0265
.499	.763	-.0227
.599	.261	-.0010
.599	.573	-.0369
.599	.897	-.0126
.699	.262	-.0029
.699	.694	-.0366
.799	.286	-.0400
.799	.774	-.0259
.896	.452	-.0643
Lower surface		
.119	.040	.0607
.119	.367	.0582
.119	.700	-.0271
.119	.944	-.0564
.298	.072	.0220
.298	.492	-.0152
.298	.798	-.0470
.499	.084	-.0400
.499	.507	-.0202
.499	.761	-.0501
.596	.269	-.0630
.596	.580	-.0290
.701	.257	-.0936
.801	.768	-.1235

$y/b/2$	x/c	C_p
Upper surface		
.120	.040	.0255
.120	.186	.0173
.120	.364	.0006
.120	.485	-.0092
.120	.700	-.0174
.120	.943	-.0139
.202	.051	.0226
.202	.252	.0012
.202	.375	-.0139
.202	.614	-.0246
.202	.886	-.0158
.300	.074	.0428
.300	.214	.0040
.300	.494	-.0325
.300	.649	-.0259
.300	.796	-.0240
.399	.165	.0037
.399	.323	-.0274
.399	.677	-.0356
.399	.886	-.0278
.499	.084	-.0281
.499	.302	-.0218
.499	.509	-.0457
.499	.763	-.0388
.599	.261	-.0268
.599	.573	-.0558
.599	.897	-.0306
a699	.262	-.0281
.699	.694	-.0570
.799	.286	-.0681
.799	.774	-.0536
.896	.452	-.0999
Lower surface		
.119	.040	.0739
.119	.367	.0677
.119	.700	-.0180
.119	.944	-.0460
.298	.072	.0743
.298	.492	-.0082
.298	.798	-.0382
.499	.084	.0003
.499	.507	-.0155
.499	.761	-.0426
.596	.269	-.0051
.596	.580	-.0180
.701	.257	-.0303
.801	.768	-.0725

TABLE III. - PRESSURE DISTRIBUTION ON A 74° SWEPT CAMBERED AND TWISTED ARROW WING MODEL - Continued

(b) M = 2.02 - Continued

 $\alpha = -3.1; C_N = 0.0367$

$y/b/2$	x/c	C_p
---------	-------	-------

Upper surface

.120	.040	.0047
.120	.186	.0085
.120	.364	-.0120
.120	.485	-.0186
.120	.700	-.0277
.120	.943	-.0227
.202	.051	.0091
.202	.252	-.0079
.202	.375	-.0283
.202	.614	-.0330
.202	.886	-.0277
.300	.074	.0248
.300	.214	-.0098
.300	.494	-.0409
.300	.649	-.0343
.300	.796	-.0318
.399	.165	-.0120
.399	.323	-.0390
.399	.677	-.0450
.399	.886	-.0378
.499	.084	.0163
.499	.302	-.0362
.499	.509	-.0620
.499	.763	-.0482
.599	.261	-.0519
.599	.573	-.0784
.599	.897	-.0447
.699	.262	-.0541
.699	.694	-.0796
.799	.286	-.0966
.799	.774	-.0803
.896	.452	-.1460

Lower surface

.119	.040	.0884
.119	.367	.0692
.119	.700	-.0091
.119	.944	-.0387
.298	.072	.0890
.298	.492	.0044
.298	.798	-.0296
.499	.084	.0292
.499	.507	-.0003
.499	.761	-.0346
.596	.269	.0129
.596	.580	-.0073
.701	.257	.0097
.801	.768	-.0630

 $\alpha = -2.0; C_N = 0.0683$

$y/b/2$	x/c	C_p
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Upper surface

.120	.040	-.0485
.120	.186	-.0132
.120	.364	-.0264
.120	.485	-.0318
.120	.700	-.0406
.120	.943	-.0321
.202	.051	-.0233
.202	.252	-.0195
.202	.375	-.0371
.202	.614	-.0428
.202	.886	-.0419
.300	.074	.0044
.300	.214	-.0318
.300	.494	-.0541
.300	.649	-.0497
.300	.796	-.0450
.399	.165	-.0381
.399	.323	-.0570
.399	.677	-.0601
.399	.886	-.0491
.499	.084	-.0098
.499	.302	-.0630
.499	.509	-.0787
.499	.763	-.0680
.599	.261	-.0771
.599	.573	-.0960
.599	.897	-.0595
.699	.262	-.0910
.699	.694	-.1010
.799	.286	-.1359
.799	.774	-.1274
.896	.452	-.1856

Lower surface

.119	.040	.0991
.119	.367	.0808
.119	.700	-.0003
.119	.944	-.0330
.298	.072	.0969
.298	.492	.0110
.298	.798	-.0221
.499	.084	.0412
.499	.507	-.0097
.499	.761	-.0224
.596	.269	.0277
.596	.580	.0078
.701	.257	.0261
.801	.768	-.0488

TABLE III. - PRESSURE DISTRIBUTIONON A 74° SWEPT CAMBERED AND TWISTED ARROW WING MODEL - Continued

(b) $M = 2.02$ - Concluded $\alpha = -0.9; C_N = 0.1005$ $\alpha = 0.3; C_N = 0.1327$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p	$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Upper surface					
.120	.040	-.0780	.120	.040	-.1122
.120	.186	-.0340	.120	.186	-.0581
.120	.364	-.0353	.120	.364	-.0450
.120	.485	-.0365	.120	.485	-.0434
.120	.700	-.0488	.120	.700	-.0531
.120	.943	-.0387	.120	.943	-.0481
.202	.051	-.0768	.202	.051	-.1037
.202	.252	-.0353	.202	.252	-.0424
.202	.375	-.0516	.202	.375	-.0591
.202	.614	-.0589	.202	.614	-.0742
.202	.886	-.0560	.202	.886	-.0585
.300	.074	-.0136	.300	.074	-.0877
.300	.214	-.0447	.300	.214	-.0654
.300	.494	-.0630	.300	.494	-.0817
.300	.649	-.0598	.300	.649	-.0764
.300	.796	-.0567	.300	.796	-.0732
.399	.165	-.0604	.399	.165	-.0949
.399	.323	-.0749	.399	.323	-.0849
.399	.677	-.0724	.399	.677	-.0883
.399	.886	-.0626	.399	.886	-.0758
.499	.084	-.0733	.499	.084	-.1370
.499	.302	-.0846	.499	.302	-.1044
.499	.509	-.0950	.499	.509	-.1050
.499	.763	-.0806	.499	.763	-.0981
.599	.261	-.1035	.599	.261	-.1232
.599	.573	-.1130	.599	.573	-.1169
.599	.897	-.0749	.599	.897	-.0792
.699	.262	-.1230	.699	.262	-.1782
.699	.694	-.1227	.699	.694	-.1270
.799	.286	-.1768	.799	.286	-.2109
.799	.774	-.1702	.799	.774	-.2116
.896	.452	-.2133	.896	.452	-.2109
Lower surface					
.119	.040	.1132	.119	.040	.1301
.119	.367	.0912	.119	.367	.1034
.119	.700	.0082	.119	.700	.0195
.119	.944	-.0249	.119	.944	-.0176
.298	.072	.1126	.298	.072	.1226
.298	.492	.0239	.298	.492	.0393
.298	.798	-.0126	.298	.798	.0031
.499	.084	.0607	.499	.084	.0707
.499	.507	.0195	.499	.507	.0374
.499	.761	-.0126	.499	.761	.0028
.596	.269	.0393	.596	.269	.0544
.596	.580	.0220	.596	.580	.0374
.701	.257	.0399	.701	.257	.0613
.801	.768	-.0365	.801	.768	-.0160

TABLE III. - PRESSURE DISTRIBUTION ON A 74° SWEPT CAMBERED AND TWISTED ARROW WING MODEL - Continued

(c) $M = 2.36$ $\alpha = -9.1; C_N = -0.1194$ $\alpha = -6.8; C_N = -0.0593$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Upper surface		
.120	.040	.0993
.120	.186	.0745
.120	.364	.0610
.120	.485	.0582
.120	.700	.0393
.120	.943	.0450
.202	.051	.0905
.202	.252	.0707
.202	.375	.0447
.202	.614	.0312
.202	.886	.0346
.300	.074	.1240
.300	.214	.0832
.300	.494	.0309
.300	.649	.0280
.300	.796	.0299
.399	.165	.0886
.399	.323	.0528
.399	.677	.0290
.399	.886	.0318
.499	.084	.1090
.499	.302	.0738
.499	.509	.0315
.499	.763	.0318
.599	.261	.0644
.599	.573	.0221
.599	.897	.0309
.699	.262	.0623
.699	.694	.0161
.799	.286	.0321
.799	.774	.0280
.896	.452	.0196

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Lower surface		
.119	.040	.0321
.119	.367	.0202
.119	.700	.0202
.119	.944	-.018
.298	.072	-.000
.298	.492	-.046
.298	.798	-.035
.499	.084	-.099
.499	.507	-.119
.499	.761	-.257
.596	.269	-.097
.596	.580	-.203
.701		
.801		

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Upper surface		
.120	.040	.0639
.120	.186	.0452
.120	.364	.0231
.120	.485	.0250
.120	.700	.0108
.120	.943	.0108
.202	.051	.0626
.202	.252	.0383
.202	.375	.0250
.202	.614	.0184
.202	.886	.0244
.300	.074	.0857
.300	.214	.0465
.300	.494	.0032
.300	.649	.0083
.300	.796	.0158
.399	.165	.0547
.399	.323	.0326
.399	.677	.0158
.399	.886	.0158
.499	.084	.0857
.499	.302	.0348
.499	.509	-.0019
.499	.763	-.0009
.599	.261	.0367
.599	.573	-.0088
.599	.897	.0060
.699	.262	.0320
.699	.694	-.0114
.799	.286	-.0016
.799	.774	-.0114
.896	.452	-.0338

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Lower surface		
.119	.040	.0500
.119	.367	.0414
.119	.700	-.0228
.119	.944	-.0423
.298	.072	-.0673
.298	.492	-.0098
.298	.798	-.0449
.499	.084	-.0332
.499	.507	-.0297
.499	.761	-.0455
.596	.269	-.0499
.596	.580	-.0657
.701	.257	-.0882
.801	.768	-.1169

TABLE III. - PRESSURE DISTRIBUTION ON A 74° SWEPT CAMBERED AND TWISTED ARROW WING MODEL - Continued

(c) $M = 2.36$ - Continued

$$\alpha = -5.7; C_N = -0.0258$$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Upper surface		
.120	.040	.0462
.120	.186	.0302
.120	.364	.0133
.120	.485	.0127
.120	.700	-.0011
.120	.943	-.0005
.202	.051	.0465
.202	.252	.0224
.202	.375	.0045
.202	.614	-.0030
.202	.886	.0007
.300	.074	.0656
.300	.214	.0321
.300	.494	-.0046
.300	.649	-.0077
.300	.796	.0004
.399	.165	.0409
.399	.323	.0014
.399	.677	-.0155
.399	.886	-.0058
.499	.084	.0616
.499	.302	.0148
.499	.509	-.0227
.499	.763	-.0227
.599	.261	.0114
.599	.573	-.0256
.599	.897	-.0105
.699	.262	.0067
.699	.694	-.0108
.799	.286	-.0212
.799	.774	-.0325
.896	.452	-.0600

$$\alpha = -4.6; C_N = -0.0029$$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Upper surface		
.120	.040	.0392
.120	.186	.0261
.120	.364	.0067
.120	.485	.0070
.120	.700	-.0077
.120	.943	-.0077
.202	.051	.0295
.202	.252	.0113
.202	.375	-.0046
.202	.614	-.0165
.202	.886	-.0105
.300	.074	.0532
.300	.214	.0167
.300	.494	-.0205
.300	.649	-.0202
.300	.796	-.0149
.399	.165	.0248
.399	.323	-.0124
.399	.677	-.0262
.399	.886	-.0127
.499	.084	.0523
.499	.302	.0048
.499	.509	-.0324
.499	.763	-.0352
.599	.261	.0017
.599	.573	-.0415
.599	.897	-.0215
.699	.262	-.0074
.699	.694	-.0521
.799	.286	-.0318
.799	.774	-.0462
.896	.452	-.0752

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Lower surface		
.119	.040	.0518
.119	.367	.0521
.119	.700	-.0237
.119	.944	-.0462
.298	.072	-.0093
.298	.492	-.0431
.298	.798	-.0428
.499	.084	-.0418
.499	.507	-.0130
.499	.761	-.0437
.596	.269	-.0585
.596	.580	-.0290
.701	.257	-.0763
.801	.768	-.1014

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Lower surface		
.119	.040	.0683
.119	.367	.0629
.119	.700	-.0165
.119	.944	-.0377
.298	.072	.0389
.298	.492	.0036
.298	.798	-.0324
.499	.084	-.0052
.499	.507	-.0030
.499	.761	-.0352
.596	.269	.0060
.596	.580	-.0058
.701	.257	-.0246
.801	.768	-.0562

TABLE III. - PRESSURE DISTRIBUTION ON A 74° SWEPT CAMBERED AND TWISTED ARROW WING MODEL - Continued

(c) $M = 2.36$ - Continued $\alpha = -3.5; C_N = 0.0324$ $\alpha = -2.4; C_N = 0.0612$

y $b/2$	x c	C_p
--------------	------------	-------

per surface

.120	.040	-.0071
.120	.186	.0023
.120	.364	-.0034
.120	.485	-.0027
.120	.700	-.0234
.120	.943	-.0228
.202	.051	.0226
.202	.252	-.0005
.202	.375	-.0271
.202	.614	-.0274
.202	.886	-.0274
.300	.074	.0395
.300	.214	.0085
.300	.494	-.0290
.300	.649	-.0302
.300	.796	-.0274
.399	.165	.0116
.399	.323	-.0290
.399	.677	-.0384
.399	.886	-.0321
.499	.084	.0310
.499	.302	-.0249
.499	.509	-.0659
.499	.763	-.0465
.599	.261	-.0187
.599	.573	-.0618
.599	.897	-.0412
.699	.262	-.0315
.699	.694	-.0681
.799	.286	-.0665
.799	.774	-.0887
.896	.452	-.1062

Lower surface

.119	.040	.0826
.119	.367	.0620
.119	.700	-.0077
.119	.944	-.0337
.298	.072	.0682
.298	.492	.0038
.298	.798	-.0293
.499	.084	.0407
.499	.507	.0051
.499	.761	-.0293
.596	.269	.0262
.596	.580	.0048
.701	.257	.0242
.801	.768	-.0352

y $b/2$	x c	C_p
--------------	------------	-------

Upper surface

.120	.040	-.0383
.120	.186	-.0121
.120	.364	-.0177
.120	.485	-.0124
.120	.700	-.0336
.120	.943	-.0324
.202	.051	-.0249
.202	.252	-.0249
.202	.375	-.0262
.202	.614	-.0302
.202	.886	-.0262
.300	.074	.0163
.300	.214	-.0130
.300	.494	-.0405
.300	.649	-.0402
.300	.796	-.0299
.399	.165	-.0180
.399	.323	-.0362
.399	.677	-.0433
.399	.886	-.0362
.499	.084	.0016
.499	.302	-.0474
.499	.509	-.0736
.499	.763	-.0599
.599	.261	-.0636
.599	.573	-.0861
.599	.897	-.0493
.699	.262	-.0705
.699	.694	-.0946
.799	.286	-.1049
.799	.774	-.1117
.896	.452	-.1292

Lower surface

.119	.040	-.1056
.119	.367	-.0819
.119	.700	-.0029
.119	.944	=.0255
.298	.072	-.0817
.298	.492	-.0188
.298	.798	=.0127
.499	.084	-.0507
.499	.507	-.0194
.499	.761	=.0121
.596	.269	-.0357
.596	.580	-.0141
.701	.257	-.0388
.801	.768	=.0255

TABLE III. - PRESSURE DISTRIBUTION ON A 74° SWEPT CAMBERED AND TWISTED ARROW WING MODEL - Continued

(c) $M = 2.36$ - Concluded $\alpha = -1.3; C_N = 0.0887$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Upper surface		
.120	.040	-.0627
.120	.186	-.0141
.120	.364	-.0323
.120	.485	-.0332
.120	.700	-.0326
.120	.943	-.0326
.202	.051	-.0533
.202	.252	-.0219
.202	.375	-.0426
.202	.614	-.0426
.202	.886	-.0536
.300	.074	-.0191
.300	.214	-.0370
.300	.494	-.0552
.300	.649	-.0552
.300	.796	-.0536
.399	.165	-.0398
.399	.323	-.0668
.399	.677	-.0668
.399	.886	-.0596
.499	.084	-.0542
.499	.302	-.0699
.499	.509	-.0903
.499	.763	-.0734
.599	.261	-.0818
.599	.573	-.1048
.599	.897	-.0753
.699	.262	-.1198
.699	.694	-.1330
.799	.286	-.1374
.799	.774	-.1405
.896	.452	-.1487
Lower surface		
.119	.040	.1249
.119	.367	.0863
.119	.700	.0160
.119	.944	-.0191
.298	.072	.1042
.298	.492	.0295
.298	.798	-.0059
.499	.084	.0659
.499	.507	.0267
.499	.761	-.0059
.596	.269	.0421
.596	.580	.0257
.701	.257	.0505
.801	.768	-.0144

 $\alpha = -0.1; C_N = 0.1181$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Upper surface		
.120	.040	-.0984
.120	.186	-.0568
.120	.364	-.0471
.120	.485	-.0446
.120	.700	-.0465
.120	.943	-.0465
.202	.051	-.0847
.202	.252	-.0568
.202	.375	-.0568
.202	.614	-.0568
.202	.886	-.0568
.300	.074	-.0759
.300	.214	-.0446
.300	.494	-.0571
.300	.649	-.0571
.300	.796	-.0571
.399	.165	-.0468
.399	.323	-.0718
.399	.677	-.0656
.399	.886	-.0656
.499	.084	-.0943
.499	.302	-.0803
.499	.509	-.0871
.499	.763	-.0806
.599	.261	-.0918
.599	.573	-.1103
.599	.897	-.0853
.699	.262	-.1315
.699	.694	-.1340
.799	.286	-.1600
.799	.774	-.1581
.896	.452	-.1400
Lower surface		
.119	.040	.1336
.119	.367	.1020
.119	.700	.0176
.119	.944	-.0121
.298	.072	.1145
.298	.492	.0360
.298	.798	.0016
.499	.084	.0829
.499	.507	.0295
.499	.761	.0032
.596	.269	.0485
.596	.580	.0326
.701	.257	.0667
.801	.768	.0007

TABLE III. - PRESSURE DISTRIBUTIONON A 74° SWEPT CAMBERED AND TWISTED ARROW WING MODEL - Continued

(d) $M = 2.50$ $\alpha = -8.7; C_N = -0.1019$

$y/b/2$	x/c	C_p
Upper surface		

.120	.040	.0729
.120	.186	.0551
.120	.364	.0427
.120	.485	.0418
.120	.700	.0281
.120	.943	.0285
.202	.051	.0749
.202	.252	.0512
.202	.375	.0405
.202	.614	.0259
.202	.886	.0259
.300	.074	.1005
.300	.214	.0609
.300	.494	.0204
.300	.649	.0207
.300	.796	.0259
.399	.165	.0723
.399	.323	.0398
.399	.677	.0243
.399	.886	.0243
.499	.084	.0957
.499	.302	.0538
.499	.509	.0171
.499	.763	.0161
.599	.261	.0606
.599	.573	.0194
.599	.897	.0262
.699	.262	.0645
.699	.694	.0155
.799	.286	.0382
.799	.774	.0281
.896	.452	.0220

Lower surface

.119	.040	.0197
.119	.367	-.0240
.119	.700	-.0410
.119	.944	-.0543
.298	.072	-.0696
.298	.492	-.0189
.298	.798	-.0550
.499	.084	-.0816
.499	.507	-.1076
.499	.761	-.0904
.596	.269	-.0933
.596	.580	-.1082
.701	.257	-.1124
.801	.768	-.1274

 $\alpha = -6.5; C_N = -0.0490$

$y/b/2$	x/c	C_p
Upper surface		

.120	.040	.0415
.120	.386	.0398
.120	.364	.0155
.120	.485	.0113
.120	.700	.0067
.120	.943	.0070
.202	.051	.0388
.202	.252	.0171
.202	.375	-.0007
.202	.614	-.0011
.202	.886	.0022
.300	.074	.0707
.300	.214	.0298
.300	.494	-.0021
.300	.649	-.0017
.300	.796	.0022
.399	.165	.0379
.399	.323	.0109
.399	.677	-.0017
.399	.886	-.0017
.499	.084	.0755
.499	.302	.0291
.499	.509	-.0099
.499	.763	-.0099
.599	.261	.0294
.599	.573	-.0124
.599	.897	.0012
.699	.262	.0324
.699	.694	-.0150
.799	.286	.0048
.799	.774	-.0121
.896	.452	-.0287

Lower surface

.119	.040	.0454
.119	.367	.0395
.119	.700	-.0323
.119	.944	-.0472
.298	.072	-.0420
.298	.492	-.0170
.298	.798	-.0475
.499	.084	-.0478
.499	.507	-.0306
.499	.761	-.0397
.596	.269	-.0478
.596	.580	-.0478
.701	.257	-.0787
.801	.768	-.1024

TABLE III. - PRESSURE DISTRIBUTION ON A 74° SWEPT CAMBERED AND TWISTED ARROW WING MODEL - Continued

(d) $M = 2.50$ - Continued $\alpha = -5.5; C_N = -0.0231$

$y/b/2$	x/c	C_p
Upper surface		
.120	.040	.0311
.120	.186	.0317
.120	.364	.0064
.120	.485	.0064
.120	.700	-.0040
.120	.943	-.0034
.202	.051	.0337
.202	.252	.0103
.202	.375	-.0056
.202	.614	-.0037
.202	.886	-.0004
.300	.074	.0538
.300	.214	.0194
.300	.494	-.0121
.300	.649	-.0115
.300	.796	-.0056
.399	.165	.0268
.399	.323	-.0034
.399	.677	-.0105
.399	.886	-.0102
.499	.084	.0622
.499	.302	.0129
.499	.509	-.0238
.499	.763	-.0267
.599	.261	.0113
.599	.573	-.0310
.599	.897	-.0183
.699	.262	.0145
.699	.694	-.0329
.799	.286	-.0079
.799	.774	-.0245
.896	.452	-.0456

 $\alpha = -4.4; C_N = 0.0051$

$y/b/2$	x/c	C_p
Upper surface		
.120	.040	.0139
.120	.186	.0158
.120	.364	-.0053
.120	.485	-.0049
.120	.700	-.0108
.120	.943	-.0101
.202	.051	.0204
.202	.252	.0022
.202	.375	-.0140
.202	.614	-.0144
.202	.886	-.0160
.300	.074	.0379
.300	.214	.0061
.300	.494	-.0231
.300	.649	-.0231
.300	.796	-.0176
.399	.165	.0074
.399	.323	-.0202
.399	.677	-.0235
.399	.886	-.0254
.499	.084	.0356
.499	.302	-.0072
.499	.509	-.0368
.499	.763	-.0365
.599	.261	-.0056
.599	.573	-.0488
.599	.897	-.0303
.699	.262	-.0137
.699	.694	-.0637
.799	.286	-.0400
.799	.774	-.0640
.896	.452	-.0767
Lower surface		
.119	.040	.0499
.119	.367	.0450
.119	.700	-.0241
.119	.944	-.0456
.298	.072	-.0222
.298	.492	-.0124
.298	.798	-.0446
.499	.084	-.0251
.499	.507	-.0027
.499	.761	-.0397
.596	.269	-.0430
.596	.580	-.0287
.701	.257	-.0589
.801	.768	-.0823
.119	.040	.0597
.119	.367	.0509
.119	.700	-.0287
.119	.944	-.0400
.298	.072	.0515
.298	.492	-.0024
.298	.798	-.0358
.499	.084	-.0076
.499	.507	-.0079
.499	.761	-.0358
.596	.269	-.0218
.596	.580	-.0160
.701	.257	-.0498
.801	.768	-.0465

TABLE III. - PRESSURE DISTRIBUTION ON A 74° SWEPT CAMBERED AND TWISTED ARROW WING MODEL - Continued

(d) M = 2.50 - Continued

 $\alpha = -3.2; C_N = 0.0354$

$y/b/2$	x/c	C_p
Upper surface		
•120	.040	-•0160
•120	.186	-•0033
•120	.364	-•0121
•120	.485	-•0121
•120	.700	-•0231
•120	.943	-•0214
•202	.051	-•0144
•202	.252	-•0131
•202	.375	-•0271
•202	.614	-•0305
•202	.886	-•0326
•300	.074	-•0161
•300	.214	-•0082
•300	.494	-•0384
•300	.649	-•0374
•300	.796	-•0316
•399	.165	-•0121
•399	.323	-•0348
•399	.677	-•0436
•399	.886	-•0312
•499	.084	-•0265
•499	.302	-•0302
•499	.509	-•0531
•499	.763	-•0501
•599	.261	-•0270
•599	.573	-•0621
•599	.897	-•0397
•699	.262	-•0270
•699	.594	-•0686
•799	.286	-•0545
•799	.774	-•0748
•896	.452	-•0851

Lower surface

•119	.040	.0788
•119	.367	.0590
•119	.700	-•0134
•119	.944	-•0305
•298	.072	-•0645
•298	.492	.0097
•298	.798	-•0260
•499	.084	.0351
•499	.507	.0074
•499	.761	-•0231
•596	.269	.0278
•596	.580	.0019
•701	.257	.0262
•801	.768	-•0326

 $\alpha = -2.2; C_N = 0.0579$

$y/b/2$	x/c	C_p
Upper surface		
•120	.040	-•0426
•120	.186	-•0189
•120	.364	-•0277
•120	.485	-•0274
•120	.700	-•0322
•120	.943	-•0299
•202	.051	-•0235
•202	.252	-•0147
•202	.375	-•0368
•202	.614	-•0371
•202	.886	-•0371
•300	.074	-•0019
•300	.214	-•0170
•300	.494	-•0475
•300	.649	-•0472
•300	.796	-•0371
•399	.165	-•0218
•399	.323	-•0410
•399	.677	-•0478
•399	.886	-•0400
•499	.084	-•0132
•499	.302	-•0452
•499	.509	-•0670
•499	.763	-•0543
•599	.261	-•0563
•599	.573	-•0796
•599	.897	-•0543
•699	.262	-•0595
•699	.694	-•0894
•799	.286	-•0897
•799	.774	-•1049
•896	.452	-•1183

Lower surface

•119	.040	.0980
•119	.367	.0726
•119	.700	-•0002
•119	.944	-•0241
•298	.072	.0827
•298	.492	.0181
•298	.798	-•0170
•499	.084	.0525
•499	.507	.0162
•499	.761	-•0160
•596	.269	.0382
•596	.580	.0084
•701	.257	.0330
•801	.768	-•0153

TABLE III. - PRESSURE DISTRIBUTION ON A 74° SWEEP CAMBERED AND TWISTED ARROW WING MODEL - Continued

(d) $M = 2.50$ - Continued $\alpha = -1.0; C_N = 0.0853$ $\alpha = 0.1; C_N = 0.1130$

$y/b/2$	x/c	C_p	$y/b/2$	x/c	C_p
Upper surface					
.120	.040	-.0722	.120	.040	-.0920
.120	.186	-.0394	.120	.186	-.0566
.120	.364	-.0351	.120	.364	-.0449
.120	.485	-.0329	.120	.485	-.0449
.120	.700	-.0416	.120	.700	-.0429
.120	.943	-.0381	.120	.943	-.0410
.202	.051	-.0598	.202	.051	-.0676
.202	.252	-.0345	.202	.252	-.0592
.202	.375	-.0423	.202	.375	-.0595
.202	.614	-.0494	.202	.614	-.0588
.202	.886	-.0507	.202	.886	-.0640
.300	.074	-.0439	.300	.074	-.0809
.300	.214	-.0361	.300	.214	-.0705
.300	.494	-.0540	.300	.494	-.0634
.300	.649	-.0546	.300	.649	-.0718
.300	.796	-.0472	.300	.796	-.0679
.399	.165	-.0342	.399	.165	-.0871
.399	.323	-.0611	.399	.323	-.0696
.399	.677	-.0605	.399	.677	-.0683
.399	.886	-.0537	.399	.886	-.0637
.499	.084	-.0183	.499	.084	-.1124
.499	.302	-.0621	.499	.302	-.1140
.499	.509	-.0787	.499	.509	-.0939
.499	.763	-.0770	.499	.763	-.0832
.599	.261	-.0780	.599	.261	-.1218
.599	.573	-.0968	.599	.573	-.1140
.599	.897	-.0696	.599	.897	-.0877
.699	.262	-.0848	.699	.262	-.1316
.699	.694	-.1049	.699	.694	-.1313
.799	.286	-.1176	.799	.286	-.1488
.799	.774	-.1257	.799	.774	-.1322
.896	.452	-.1235	.896	.452	-.1144
Lower surface					
.119	.040	.1126	.119	.040	.1353
.119	.367	.0782	.119	.367	.0993
.119	.700	.0074	.119	.700	.0207
.119	.944	-.0176	.119	.944	-.0037
.298	.072	.0850	.298	.072	.1110
.298	.492	.0246	.298	.492	.0379
.298	.798	-.0108	.298	.798	-.0024
.499	.084	.0740	.499	.084	.0869
.499	.507	.0243	.499	.507	.0366
.499	.761	-.0118	.499	.761	.0058
.596	.269	.0502	.596	.269	.0571
.596	.580	.0291	.596	.580	.0385
.701	.257	.0532	.701	.257	.0603
.801	.768	-.0079	.801	.768	.0028

TABLE III. - PRESSURE DISTRIBUTION ON A 74° SWEPT CAMBERED AND TWISTED ARROW WING MODEL - Continued

(d) $M = 2.50$ - Concluded $\alpha = 1.3; C_N = 0.1426$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Upper surface		
,120	.040	-.0860
,120	.186	-.0597
,120	.364	-.0484
,120	.485	-.0454
,120	.700	-.0487
,120	.943	-.0458
,202	.051	-.0801
,202	.252	-.0639
,202	.375	-.0675
,202	.614	-.0694
,202	.886	-.0568
,300	.074	-.0973
,300	.214	-.0782
,300	.494	-.0779
,300	.649	-.0775
,300	.796	-.0766
,399	.165	-.1003
,399	.323	-.0840
,399	.677	-.0837
,399	.886	-.0857
,499	.084	-.1278
,499	.302	-.1048
,499	.509	-.0976
,499	.763	-.0947
,599	.261	-.1307
,599	.573	-.1203
,599	.897	-.1006
,699	.262	-.1473
,699	.694	-.1463
,799	.286	-.1518
,799	.774	-.1301
,896	.452	-.1087
Lower surface		
,119	.040	.1514
,119	.367	.1086
,119	.700	.0343
,119	.944	-.0040
,298	.072	.1264
,298	.492	.0551
,298	.798	
,499	.084	
,499	.507	
,499	.761	.0181
,596	.269	.0713
,596	.580	.0483
,701	.257	.0700
,801	.768	.0155

 $\alpha = 2.3; C_N = 0.1684$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Upper surface		
,120	.040	-.1110
,120	.186	-.1012
,120	.364	-.0545
,120	.485	-.0448
,120	.700	-.0587
,120	.943	-.0584
,202	.051	-.1035
,202	.252	-.0973
,202	.375	-.1087
,202	.614	-.0743
,202	.886	-.0513
,300	.074	-.1074
,300	.214	-.1142
,300	.494	-.1113
,300	.649	-.0999
,300	.796	-.0999
,399	.165	-.1229
,399	.323	-.1174
,399	.677	-.1294
,399	.886	-.1301
,499	.084	-.1304
,499	.302	-.1320
,499	.509	-.1307
,499	.763	-.1314
,599	.261	-.1379
,599	.573	-.1297
,599	.897	-.1239
,699	.262	-.1524
,699	.694	-.1486
,799	.286	-.1511
,799	.774	-.1363
,896	.452	-.1064
Lower surface		
,119	.040	.1572
,119	.367	.1267
,119	.700	.0450
,119	.944	.0165
,298	.072	.1423
,298	.492	.0684
,298	.798	.0275
,499	.084	.1053
,499	.507	.0651
,499	.761	.0281
,596	.269	.0830
,596	.580	.0573
,701	.257	.0894
,801	.768	.0220

TABLE III. - PRESSURE DISTRIBUTION ON A 74° SWEPT CAMBERED AND TWISTED ARROW WING MODEL - Continued

(e) $M = 2.65$ $\alpha = -8.1; C_N = -0.0840$

$y/b/2$	x/c	C_p
Upper surface		
.120	.040	.0572
.120	.186	.0582
.120	.364	.0306
.120	.485	.0279
.120	.700	.0212
.120	.943	.0202
.202	.051	.0683
.202	.252	.0403
.202	.375	.0111
.202	.614	.0141
.202	.886	.0202
.300	.074	.0861
.300	.214	.0491
.300	.494	.0134
.300	.649	.0097
.300	.796	.0168
.399	.165	.0609
.399	.323	.0319
.399	.677	.0215
.399	.886	.0235
.499	.084	.0891
.499	.302	e0494
.499	.509	.0097
.499	.763	.0125
.599	.261	.0605
.599	.573	.0134
.599	.897	.0266
.699	.262	.0551
.699	.694	.0138
.799	.286	.0380
.799	.774	.0212
.896	.452	.0097

Lower surface

.119	.040	.0198
.119	.367	.0266
.119	.700	-.0333
.119	.944	-.0454
.072	.072	-.0622
.492	.492	-.0178
.298	.798	-.0514
.499	.084	-.0662
.499	.507	-.0831
.499	.761	-.0666
.596	.269	-.0763
.596	.580	-.0831
.701	.257	-.0861
.801	.768	-.1076

 $\alpha = -5.9; C_N = -0.0317$

$y/b/2$	x/c	C_p
Upper surface		
.120	.040	.0289
.120	.186	.0279
.120	.364	.0067
.120	.485	.0034
.120	.700	-.0020
.120	.943	-.0034
.202	.051	.0296
.202	.252	.0118
.202	.375	-.0014
.202	.614	-.0051
.202	.886	.0020
.300	.074	.0639
.300	.214	.0262
.300	.494	-.0114
.300	.649	-.0060
.300	.796	-.0047
.399	.165	.0377
.399	.323	.0034
.399	.677	-.0121
.399	.886	.0003
.499	.084	.0632
.499	.302	.0171
.499	.509	-.0158
.499	.763	-.0158
.599	.261	.0195
.599	.573	-.0155
.599	.897	-.0007
.699	.262	.0293
.699	.694	-.0141
.799	.286	.0081
.799	.774	-.0134
.896	.452	-.0262

Lower surface

.119	.040	.0471
.119	.367	.0464
.119	.700	-.0303
.119	.944	-.0410
.072	.072	-.0393
.298	.298	-.0131
.499	.084	-.0323
.499	.507	-.0121
.499	.761	-.0360
.596	.269	-.0461
.596	.580	-.0333
.701	.257	-.0625
.801	.768	-.0814

TABLE III. - PRESSURE DISTRIBUTIONON A 74° SWEPT CAMBERED AND TWISTED ARROW WING MODEL - Continued

(e) M = 2.65 - Continued

 $\alpha = -4.8; C_N = -0.0056$ $\alpha = -3.8; C_N = 0.0181$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Upper surface		
.120	.040	.0104
.120	.186	.0118
.120	.364	-.0030
.120	.485	-.0027
.120	.700	-.0138
.120	.943	-.0121
.202	.051	.0185
.202	.252	-.0125
.202	.375	-.0125
.202	.614	-.0121
.202	.886	-.0118
.300	.074	.0420
.300	.214	.0104
.300	.494	-.0205
.300	.649	-.0171
.300	.796	-.0118
.399	.165	.0148
.399	.323	-.0097
.399	.677	-.0097
.399	.886	-.0101
.499	.084	.0518
.499	.302	.0020
.499	.509	-.0350
.499	.763	-.0202
.599	.261	.0067
.599	.573	-.0336
.599	.897	-.0168
.699	.262	.0118
.699	.694	-.0393
.799	.286	-.0077
.799	.774	-.0370
.896	.452	-.0454
Lower surface		
.119	.040	.0636
.119	.367	.0440
.119	.700	-.0195
.119	.944	-.0397
.298	.072	-.0225
.298	.492	-.0054
.298	.798	-.0363
.499	.084	-.0215
.499	.507	-.0023
.499	.761	-.0350
.596	.269	-.0215
.596	.580	-.0094
.701	.257	-.0467
.801	.768	-.0575
Lower surface		
.119	.040	.0662
.119	.367	.0511
.119	.700	-.0162
.119	.944	-.0323
.298	.072	.0414
.298	.492	.0040
.298	.798	-.0296
.499	.084	-.0054
.499	.507	-.0037
.499	.761	-.0296
.596	.269	.0168
.596	.580	.0014
.701	.257	-.0282
.801	.768	-.0363

TABLE III. - PRESSURE DISTRIBUTIONON A 74° SWEPT CAMBERED AND TWISTED ARROW WING MODEL - Continued(e) $M = 2.65$ - Continued $\alpha = -2.7; C_N = 0.0435$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Upper surface		
.120	.040	-.0232
.120	.186	-.0064
.120	.364	-.0185
.120	.485	-.0182
.120	.700	-.0289
.120	.943	-.0279
.202	.051	-.0168
.202	.252	-.0165
.202	.375	-.0309
.202	.614	-.0313
.202	.886	-.0222
.300	.074	.0051
.300	.214	-.0215
.300	.494	-.0457
.300	.649	-.0350
.300	.796	-.0289
.399	.165	-.0205
.399	.323	-.0447
.399	.677	-.0451
.399	.886	-.0377
.499	.084	.0114
.499	.302	-.0440
.499	.509	-.0639
.499	.763	-.0514
.599	.261	-.0471
.599	.573	-.0733
.599	.897	-.0511
.699	.262	-.0444
.699	.694	-.0780
.799	.286	-.0592
.799	.774	-.0820
.896	.452	-.0881

Lower surface

.119	.040	.0767
.119	.367	.0595
.119	.700	-.0118
.119	.944	-.0279
.298	.072	.0528
.298	.492	.0094
.298	.798	-.0232
.499	.084	.0316
.499	.507	.0067
.499	.761	-.0239
.596	.269	.0306
.596	.580	.0168
.701	.257	.0336
.801	.768	-.0219

 $\alpha = -1.6; C_N = 0.0679$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Upper surface		
.120	.040	-.0319
.120	.186	-.0319
.120	.364	-.0319
.120	.485	-.0319
.120	.700	-.0319
.120	.943	-.0319
.202	.051	-.0319
.202	.252	-.0319
.202	.375	-.0326
.202	.614	-.0333
.202	.886	-.0343
.300	.074	-.0094
.300	.214	-.0303
.300	.494	-.0498
.300	.649	-.0474
.300	.796	-.0387
.399	.165	-.0454
.399	.323	-.0467
.399	.677	-.0484
.399	.886	-.0403
.499	.084	-.0017
.499	.302	-.0514
.499	.509	-.0706
.499	.763	-.0629
.599	.261	-.0602
.599	.573	-.0834
.599	.897	-.0673
.699	.262	-.0602
.699	.694	-.0891
.799	.286	-.0854
.799	.774	-.0999
.896	.452	-.1086

.119	.040	.0908
.119	.367	.0676
.119	.700	-.0125
.119	.944	-.0319
.298	.072	.0736
.298	.492	.0215
.298	.798	-.0111
.499	.084	.0555
.499	.507	.0208
.499	.761	-.0101
.596	.269	.0427
.596	.580	.0192
.701	.257	.0444
.801	.768	-.0097

TABLE III. - PRESSURE DISTRIBUTIONON A 74° SWEPT CAMBERED AND TWISTED ARROW WING MODEL - Continued

(e) $M = 2.65$ - Continued $\alpha = -0.5; C_N = 0.0925$ $\alpha = 0.6; C_N = 0.1156$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p	$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Upper surface					
.120	.040	-.0582	.120	.040	-.0874
.120	.186	-.0366	.120	.186	-.0669
.120	.364	-.0397	.120	.364	-.0669
.120	.485	-.0397	.120	.485	-.0676
.120	.700	-.0383	.120	.700	-.0558
.120	.943	-.0366	.120	.943	-.0558
.202	.051	-.0427	.202	.051	-.0800
.202	.252	-.0407	.202	.252	-.0652
.202	.375	-.0440	.202	.375	-.0636
.202	.614	-.0414	.202	.614	-.0632
.202	.886	-.0420	.202	.886	-.0625
.300	.074	-.0642	.300	.074	-.0935
.300	.214	-.0393	.300	.214	-.0703
.300	.494	-.0400	.300	.494	-.0666
.300	.649	-.0437	.300	.649	-.0666
.300	.796	-.0414	.300	.796	-.0622
.399	.165	-.0588	.399	.165	-.0992
.399	.323	-.0585	.399	.323	-.0864
.399	.677	-.0501	.399	.677	-.0780
.399	.886	-.0501	.399	.886	-.0747
.499	.084	-.0582	.499	.084	-.1103
.499	.302	-.0578	.499	.302	-.1053
.499	.509	-.0578	.499	.509	-.1016
.499	.763	-.0736	.499	.763	-.0928
.599	.261	-.0733	.599	.261	-.1170
.599	.573	-.0894	.599	.573	-.1194
.599	.897	-.0807	.599	.897	-.1066
.699	.262	-.0817	.699	.262	-.1358
.699	.694	-.0918	.699	.694	-.1365
.799	.286	-.1009	.799	.286	-.1389
.799	.774	-.0995	.799	.774	-.1251
.896	.452	-.0891	.896	.452	-.1042
Lower surface					
.119	.040	.1190	.119	.040	.1210
.119	.367	.0918	.119	.367	.0857
.119	.700	.0175	.119	.700	.0121
.119	.944	-.0097	.119	.944	-.0158
.298	.072	.1019	.298	.072	.0982
.298	.492	.0346	.298	.492	.0383
.298	.798	.0007	.298	.798	-.0003
.499	.084	.0844	.499	.084	.0777
.499	.507	.0360	.499	.507	.0340
.499	.761	.0014	.499	.761	.0037
.596	.269	.0605	.596	.269	.0592
.596	.580	.0373	.596	.580	.0380
.701	.257	.0599	.701	.257	.0619
.801	.768	.0134	.801	.768	.0077

TABLE III. - PRESSURE DISTRIBUTION ON A 74° SWEPT CAMBERED AND TWISTED ARROW WING MODEL - Continued

(e) $M = 2.65$ - Concluded $\alpha = 1.7; C_N = 0.1438$

y $b/2$	x c	C_p
Upper surface		
Lower surface		
.120	.040	-.0938
.120	.186	-.0723
.120	.364	-.0602
.120	.485	-.0518
.120	.700	-.0484
.120	.943	-.0464
.202	.051	-.0851
.202	.252	-.0639
.202	.375	-.0625
.202	.614	-.0625
.202	.886	-.0508
.300	.074	-.0988
.300	.214	-.1005
.300	.494	-.0773
.300	.649	-.0773
.300	.796	-.0773
.399	.165	-.0979
.399	.323	-.0982
.399	.677	-.0972
.399	.886	-.0955
.499	.084	-.1180
.499	.302	-.1180
.499	.509	-.1180
.499	.763	-.1032
.599	.261	-.1180
.599	.573	-.1187
.599	.897	-.1066
.699	.262	-.1321
.699	.694	-.1335
.799	.286	-.1321
.799	.774	-.1127
.896	.452	-.0975

 $\alpha = 2.9; C_N = 0.1672$

y $b/2$	x c	C_p
Upper surface		
Lower surface		
.120	.040	-.1073
.120	.186	-.1025
.120	.364	-.0743
.120	.485	-.0562
.120	.700	-.0625
.120	.943	-.0625
.202	.051	-.1049
.202	.252	-.1029
.202	.375	-.0972
.202	.614	-.0861
.202	.886	-.0646
.300	.074	-.1241
.300	.214	-.1234
.300	.494	-.1083
.300	.649	-.1160
.300	.796	-.1096
.399	.165	-.1298
.399	.323	-.1207
.399	.677	-.1217
.399	.886	-.1197
.499	.084	-.1352
.499	.302	-.1355
.499	.509	-.1301
.499	.763	-.1254
.599	.261	-.1402
.599	.573	-.1358
.599	.897	-.1412
.699	.262	-.1449
.699	.694	-.1449
.799	.286	-.1449
.799	.774	-.1318
.896	.452	-.1022



TABLE III. - PRESSURE DISTRIBUTIONON A 74° SWEPT CAMBERED AND TWISTED ARROW WING MODEL - Continued

(f) $M = 2.80$

$$\alpha = -7.5; C_N = -0.0643$$

$y/b/2$	x/c	C_p
Upper surface		
.120	.040	.0451
.120	.186	.0273
.120	.364	.0112
.120	.485	.0119
.120	.700	.0035
.120	.943	.0042
.202	.051	.0448
.202	.252	.0220
.202	.375	-.0007
.202	.614	.0011
.202	.886	.0018
.300	.074	.0763
.300	.214	.0350
.300	.494	-.0042
.300	.649	-.0063
.300	.796	.0021
.399	.165	.0434
.399	.323	.0105
.399	.677	-.0035
.399	.886	.0049
.499	.084	.0735
.499	.302	.0259
.499	.509	-.0066
.499	.763	-.0049
.599	.261	.0354
.599	.573	-.0070
.599	.897	.0049
.699	.262	.0448
.699	.694	-.0038
.799	.286	.0259
.799	.774	.0004
.896	.452	.0000

$$\alpha = -5.3; C_N = -0.0160$$

$y/b/2$	x/c	C_p
Upper surface		
.120	.040	.0165
.120	.186	.0172
.120	.364	-.0024
.120	.485	-.0018
.120	.700	-.0105
.120	.943	-.0101
.202	.051	.0242
.202	.252	.0021
.202	.375	-.0108
.202	.614	-.0161
.202	.886	-.0091
.300	.074	.0458
.300	.214	.0115
.300	.494	-.0217
.300	.649	-.0220
.300	.796	-.0154
.399	.165	.0227
.399	.323	-.0255
.399	.677	-.0273
.399	.886	-.0213
.499	.084	.0515
.499	.302	-.0031
.499	.509	-.0343
.499	.763	-.0339
.599	.261	.0053
.599	.573	-.0332
.599	.897	-.0235
.699	.262	.0168
.699	.694	-.0326
.799	.286	-.0004
.799	.774	-.0343
.896	.452	-.0346

$y/b/2$	x/c	C_p
Lower surface		
.119	.040	.0427
.119	.367	-.0429
.119	.700	-.0427
.119	.944	-.0518
.298	.072	-.0581
.298	.492	-.0207
.298	.798	-.0532
.499	.084	-.0675
.499	.507	-.0752
.499	.761	-.0724
.596	.269	-.0759
.596	.580	-.0788
.701	.257	-.0781
.801	.768	-.0980

TABLE III. - PRESSURE DISTRIBUTION ON A 74° SWEPT CAMBERED AND TWISTED ARROW WING MODEL - Continued

(f) $M = 2.80$ - Continued $\alpha = -4.2; C_N = 0.0088$

$y/b/2$	x/c	C_p
Upper surface		
.120	.040	.0070
.120	.186	.0056
.120	.364	-.0088
.120	.485	-.0095
.120	.700	-.0227
.120	.943	-.0224
.202	.051	.0119
.202	.252	-.0140
.202	.375	-.0189
.202	.614	-.0220
.202	.886	-.0266
.300	.074	.0284
.300	.214	.0000
.300	.494	-.0329
.300	.649	-.0301
.300	.796	-.0231
.399	.165	.0046
.399	.323	-.0224
.399	.677	-.0290
.399	.886	-.0290
.499	.084	.0444
.499	.302	-.0136
.499	.509	-.0473
.499	.763	-.0465
.599	.261	-.0063
.599	.573	-.0476
.599	.897	-.0308
.699	.262	-.0049
.699	.694	-.0511
.799	.286	-.0224
.799	.774	-.0465
.896	.452	-.0490
Lower surface		
.119		
.119		
.119	.944	-.0238
.119	.072	.0343
.298	.492	.0014
.298	.798	-.0329
.499	.084	-.0172
.499	.507	.0031
.499	.761	-.0297
.596	.269	-.0105
.596	.580	-.0007
.701	.257	-.0238
.801	.768	-.0378

 $\alpha = -3.2; C_N = 0.0303$

$y/b/2$	x/c	C_p
Upper surface		
.120	.040	-.0143
.120	.186	-.0140
.120	.364	-.0154
.120	.485	-.0161
.120	.700	-.0280
.120	.943	-.0273
.202	.051	-.0063
.202	.252	-.0238
.202	.375	-.0284
.202	.614	-.0339
.202	.886	-.0277
.300	.074	.0143
.300	.214	-.0189
.300	.494	-.0388
.300	.649	-.0361
.300	.796	-.0322
.399	.165	-.0070
.399	.323	-.0399
.399	.677	-.0448
.399	.886	-.0346
.499	.084	.0249
.499	.302	-.0357
.499	.509	-.0588
.499	.763	-.0462
.599	.261	-.0245
.599	.573	-.0605
.599	.897	-.0434
.699	.262	-.0203
.699	.694	-.0627
.799	.286	-.0364
.799	.774	-.0651
.896	.452	-.0696
Lower surface		
.119		
.119		
.119	.944	-.0238
.119	.072	.0343
.298	.492	.0014
.298	.798	-.0329
.499	.084	-.0172
.499	.507	.0031
.499	.761	-.0297
.596	.269	-.0105
.596	.580	-.0007
.701	.257	-.0238
.801	.768	-.0378



TABLE III. - PRESSURE DISTRIBUTION ON A 74° SWEPT CAMBERED AND TWISTED ARROW WING MODEL - Continued

(f) $M = 2.80$ - Continued $\alpha = -2.1; C_N = 0.0528$

$y/b/2$	x/c	C_p
Upper surface		
.120	.040	-.0287
.120	.186	-.0210
.120	.364	-.0277
.120	.485	-.0287
.120	.700	-.0357
.120	.943	-.0350
.202	.051	-.0242
.202	.252	-.0273
.202	.375	-.0371
.202	.614	-.0385
.202	.886	-.0350
.300	.074	-.0053
.300	.214	-.0311
.300	.494	-.0511
.300	.649	-.0458
.300	.796	-.0381
.399	.165	-.0262
.399	.323	-.0515
.399	.677	-.0518
.399	.886	-.0458
.499	.084	.0038
.499	.302	-.0511
.499	.509	-.0682
.499	.763	-.0679
.599	.261	-.0525
.599	.573	-.0756
.599	.897	-.0627
.699	.262	-.0462
.699	.694	-.0815
.799	.286	-.0616
.799	.774	-.0826
.896	.452	-.0843
Lower surface		
.119	.040	.0808
.119	.367	.0574
.119	.700	-.0066
.119	.944	-.0280
.298	.072	.0550
.298	.492	.0119
.298	.798	-.0224
.499	.084	.0364
.499	.507	.0091
.499	.761	-.0178
.596	.269	.0364
.596	.580	.0095
.701	.257	.0403
.801	.768	-.0112

 $\alpha = -1.0; C_N = 0.0760$

$y/b/2$	x/c	C_p
upper surface		
.120	.040	-.0525
.120	.186	-.0403
.120	.364	-.0434
.120	.485	-.0431
.120	.700	-.0451
.120	.943	-.0448
.202	.051	-.0396
.202	.252	-.0381
.202	.375	-.0458
.202	.614	-.0515
.202	.886	-.0500
.300	.074	-.0378
.300	.214	-.0378
.300	.494	-.0581
.300	.649	-.0592
.300	.796	-.0518
.399	.165	-.0455
.399	.323	-.0627
.399	.677	-.0612
.399	.886	-.0535
.499	.084	-.0326
.499	.302	-.0592
.499	.509	-.0770
.499	.763	-.0766
.599	.261	-.0665
.599	.573	-.0882
.599	.897	-.0798
.699	.262	-.0696
.699	.694	-.0903
.799	.286	-.0910
.799	.774	-.0973
.896	.452	-.0990
Lower surface		
.119	.040	.0878
.119	.367	.0627
.119	.700	.0000
.119	.944	-.0231
.298	.072	.0675
.298	.492	.0192
.298	.798	-.0130
.499	.084	.0570
.499	.507	.0203
.499	.761	-.0105
.596	.269	.0416
.596	.580	.0196
.701	.257	.0427
.801	.768	-.0081

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TABLE III. - PRESSURE DISTRIBUTION ON A 74° SWEEP CAMBERED AND TWISTED ARROW WING MODEL - Continued

(f) $M = 2.80$ - Continued $\alpha = 0.1; C_N = 0.1006$

$y/b/2$	x/c	C_p
Upper surface		
,120	,040	-.0644
,120	,186	-.0557
,120	,364	-.0528
,120	,485	-.0532
,120	,700	-.0532
,120	,943	-.0532
,202	,051	-.0647
,202	,252	-.0476
,202	,375	-.0546
,202	,614	-.0557
,202	,886	-.0557
,300	,074	-.0704
,300	,214	-.0704
,300	,494	-.0693
,300	,649	-.0605
,300	,796	-.0546
,399	,165	-.0714
,399	,323	-.0721
,399	,677	-.0658
,399	,886	-.0584
,499	,084	-.0759
,499	,302	-.0759
,499	,509	-.0840
,499	,763	-.0829
,599	,261	-.0931
,599	,573	-.0917
,599	,897	-.0920
,699	,262	-.0892
,699	,694	-.0969
,799	,286	-.1019
,799	,774	-.0924
,896	,452	-.0812
Lower surface		
,119	,040	,1043
,119	,367	,0749
,119	,700	,0108
,119	,944	-,0147
,298	,072	,0798
,298	,492	,0290
,298	,798	-,0038
,499	,084	,0654
,499	,507	,0287
,499	,761	-,0011
,596	,269	,0925
,596	,580	,0322
,701	,257	,0581
,801	,768	,0063

 $\alpha = 1.1; C_N = 0.1206$

$y/b/2$	x/c	C_p
Upper surface		
,120	,040	-,0770
,120	,186	-,0763
,120	,364	-,0616
,120	,485	-,0574
,120	,700	-,0560
,120	,943	-,0563
,202	,051	-,0784
,202	,252	-,0696
,202	,375	-,0679
,202	,614	-,0665
,202	,886	-,0693
,300	,074	-,0847
,300	,214	-,0840
,300	,494	-,0738
,300	,649	-,0742
,300	,796	-,0693
,399	,165	-,0875
,399	,323	-,0878
,399	,677	-,0724
,399	,886	-,0721
,499	,084	-,1004
,499	,302	-,0973
,499	,509	-,0973
,499	,763	-,0973
,599	,261	-,1137
,599	,573	-,1137
,599	,897	-,1151
,699	,262	-,1148
,699	,694	-,1148
,799	,286	-,1211
,799	,774	-,1036
,896	,452	-,0871
Lower surface		
,119	,040	,1218
,119	,367	,0920
,119	,700	,0210
,119	,944	-,0056
,298	,072	,0952
,298	,492	,0431
,298	,798	,0091
,499	,084	,0861
,499	,507	,0441
,499	,761	,0133
,596	,269	,0647
,596	,580	,0431
,701	,257	,0669
,801	,768	,0168

TABLE III. - PRESSURE DISTRIBUTIONON A 74° SWEPT CAMBERED AND TWISTED ARROW WING MODEL - Concluded

(f) M = 2.80 - Concluded

 $\alpha = 2.3; C_N = 0.1438$

$y/b/2$	x/c	C_p
Upper surface		
.120	.040	-.0878
.120	.186	-.0875
.120	.364	-.0823
.120	.485	-.0686
.120	.700	-.0574
.120	.943	-.0581
.202	.051	-.0871
.202	.252	-.0878
.202	.375	-.0735
.202	.614	-.0731
.202	.886	-.0854
.300	.074	-.0977
.300	.214	-.0942
.300	.494	-.0885
.300	.649	-.0903
.300	.796	-.0885
.399	.165	-.1039
.399	.323	-.1043
.399	.677	-.0959
.399	.886	-.0927
.499	.084	-.1155
.499	.302	-.1144
.499	.509	-.1092
.499	.763	-.1096
.599	.261	-.1207
.599	.573	-.1207
.599	.897	-.1169
.699	.262	-.1250
.699	.694	-.1246
.799	.286	-.1246
.799	.774	-.1074
.896	.452	-.0903

Lower surface

.119	.040	.1393
.119	.367	.1036
.119	.700	.0304
.119	.944	.0007
.298	.072	.1123
.298	.492	.0490
.298	.798	.0143
.499	.084	.0927
.499	.507	.0473
.499	.761	.0143
.596	.269	.0717
.596	.580	.0486
.701	.257	.0707
.801	.768	.0224

 $\alpha = 3.4; C_N = 0.1682$

$y/b/2$	x/c	C_p
Upper surface		
.120	.040	-.0959
.120	.186	-.0955
.120	.364	-.0854
.120	.485	-.0637
.120	.700	-.0623
.120	.943	-.0612
.202	.051	-.1011
.202	.252	-.1015
.202	.375	-.0871
.202	.614	-.0865
.202	.886	-.0540
.300	.074	-.1158
.300	.214	-.1158
.300	.494	-.1158
.300	.649	-.1158
.300	.796	-.1004
.399	.165	-.1158
.399	.323	-.1158
.399	.677	-.1158
.399	.886	-.1162
.499	.084	-.1260
.499	.302	-.1267
.499	.509	-.1221
.499	.763	-.1211
.599	.261	-.1284
.599	.573	-.1267
.599	.897	-.1246
.699	.262	-.1312
.699	.694	-.1316
.799	.286	-.1316
.799	.774	-.1144
.896	.452	-.0942

Lower surface

$y/b/2$	x/c	C_p
.119	.040	.1554
.119	.367	.1109
.119	.700	.0378
.119	.944	.0105
.298	.072	.1235
.298	.492	.0616
.298	.798	.0220
.499	.084	.1050
.499	.507	.0581
.499	.761	.0224
.596	.269	.0781
.596	.580	.0581
.701	.257	.0865
.801	.768	.0354

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TABLE IV. - PRESSURE DISTRIBUTION ON A 74° SWEPT FLAT ARROW WING MODEL

(a) $M = 1.60$ $\alpha = -2.4; C_N = -0.0690$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
-----------------	---------------	-------

Upper surface

.118	.037	.110
.118	.183	.110
.118	.362	.073
.118	.478	.001
.118	.700	.012
.118	.942	-.008
.199	.055	.103
.199	.251	.065
.199	.367	.029
.199	.616	.007
.199	.884	-.003
.298	.066	.089
.298	.216	.071
.298	.490	.009
.298	.648	.003
.298	.794	-.008
.396	.162	.062
.396	.318	.005
.396	.680	-.010
.396	.886	-.023
.497	.076	.068
.497	.505	.000
.497	.759	.000
.597	.256	-.006
.700	.257	-.042
.700	.684	-.042
.797	.278	.007
.895	.512	-.018

 $\alpha = -0.1; C_N = -0.0010$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
-----------------	---------------	-------

Upper surface

.118	.037	.073
.118	.183	.050
.118	.362	.049
.118	.478	-.026
.118	.700	-.016
.118	.942	-.017
.199	.055	.070
.199	.251	.019
.199	.367	.003
.199	.616	-.019
.199	.884	-.031
.298	.066	.039
.298	.216	.038
.298	.490	-.019
.298	.648	-.025
.298	.794	-.037
.396	.162	.032
.396	.318	-.018
.396	.680	-.041
.396	.886	-.049
.497	.076	.034
.497	.505	-.030
.497	.759	-.031
.597	.256	-.044
.700	.257	-.090
.700	.684	-.081
.797	.278	-.047
.895	.512	-.081

Lower surface

.120	.033	.008
.120	.588	.022
.120	.538	-.049
.120	.696	-.036
.120	.941	-.045
.297	.073	.015
.297	.796	-.053
.499	.089	-.061
.499	.506	-.060
.499	.768	-.056
.597	.258	-.110
.597	.577	-.092
.697	.263	-.136
.796	.768	-.165

Lower surface

.120	.033	.043
.120	.362	-.020
.120	.538	-.033
.120	.696	-.021
.120	.941	-.020
.297	.073	.073
.297	.796	-.032
.499	.089	.019
.499	.506	-.035
.499	.768	-.034
.597	.258	-.007
.597	.577	-.016
.697	.263	-.022
.796	.768	-.094

TABLE IV. - PRESSURE DISTRIBUTION ON A 74° SWEPT FLAT ARROW WING MODEL - Continued

(a) $M = 1.60$ - Continued $\alpha = 1.0; C_N = 0.0332$

$y/b/2$	x/c	C_p
Upper surface		
•118	.037	.0516
•118	.183	.0433
•118	.362	.0375
•118	.478	-.0387
•118	.700	-.0236
•118	.942	-.0412
•199	.055	.0593
•199	.251	.0317
•199	.367	-.0313
•199	.616	-.0409
•199	.884	-.0448
•298	.066	.0378
•298	.216	.0256
•298	.490	-.0297
•298	.648	-.0384
•298	.794	-.0480
•396	.162	.0169
•396	.318	-.0480
•396	.680	-.0493
•396	.886	-.0531
•497	.076	-.0040
•497	.505	-.0499
•497	.759	-.0522
•597	.256	-.0583
•700	.257	-.1123
•700	.684	-.1087
•797	.278	-.0724
•895	.512	-.1123
Lower surface		
•120	.033	.0812
•120	.362	.0555
•120	.538	-.0175
•120	.696	-.0059
•120	.941	-.0178
•297	.073	.1050
•297	.796	-.0146
•499	.089	.0352
•499	.506	-.0187
•499	.768	-.0364
•597	.258	.0066
•597	.577	-.0316
•697	.263	-.0075
•796	.768	-.0766

 $\alpha = 2.2; C_N = 0.0695$

$y/b/2$	x/c	C_p
Upper surface		
•118	.037	.0802
•118	.183	.0339
•118	.362	.0284
•118	.478	-.0498
•118	.700	-.0353
•118	.942	-.0353
•199	.055	.0461
•199	.251	.0200
•199	.367	-.0131
•199	.616	-.0524
•199	.884	-.0556
•298	.066	.0197
•298	.216	.0200
•298	.490	-.0453
•298	.648	-.0498
•298	.794	-.0578
•396	.162	-.0186
•396	.318	-.0498
•396	.680	-.0636
•396	.886	-.0678
•497	.076	-.0726
•497	.505	-.0640
•497	.759	-.0649
•597	.256	-.1006
•700	.257	-.1727
•700	.684	-.1299
•797	.278	-.1746
•895	.512	-.2265
Lower surface		
•120	.033	.0940
•120	.362	.0641
•120	.538	-.0038
•120	.696	.0078
•120	.941	-.0054
•297	.073	.1188
•297	.796	-.0028
•499	.089	.0683
•499	.506	-.0046
•499	.768	-.0247
•597	.258	.0329
•597	.577	-.0099
•697	.263	.0236
•796	.768	-.0491

TABLE IV. - PRESSURE DISTRIBUTION ON A 74° SWEPT FLAT ARROW WING MODEL - Continued

(a) $M = 1.60$ - Continued $\alpha = 3.3; C_N = 0.1064$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Upper surface		
.118	.037	.0145
.118	.183	.0297
.118	.362	.0132
.118	.478	-.0627
.118	.700	-.0566
.118	.942	-.0534
.199	.055	-.0437
.199	.251	.0091
.199	.367	-.0534
.199	.616	-.0579
.199	.884	-.0595
.298	.066	-.1056
.298	.216	-.0112
.298	.490	-.0537
.298	.648	-.0557
.298	.794	-.0582
.396	.162	-.1084
.396	.318	-.1091
.396	.680	-.1091
.396	.886	-.1126
.497	.076	-.1278
.497	.505	-.1217
.497	.759	-.1178
.597	.256	-.1551
.700	.257	-.2285
.700	.684	-.2186
.797	.278	-.2108
.895	.512	-.2073
Lower surface		
.120	.033	.1117
.120	.362	.0847
.120	.538	.0078
.120	.696	.0058
.120	.941	.0042
.297	.073	.1295
.297	.796	.0097
.499	.089	.0786
.499	.506	.0065
.499	.768	.0075
.597	.258	.0541
.597	.577	.0081
.697	.263	.0380
.796	.768	-.0337

 $\alpha = 4.5; C_N = 0.1468$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Upper surface		
.118	.037	-.1059
.118	.183	.0113
.118	.362	-.0012
.118	.478	-.0701
.118	.700	-.0576
.118	.942	-.0708
.199	.055	-.1104
.199	.251	-.0048
.199	.367	-.0350
.199	.616	-.0746
.199	.884	-.0772
.298	.066	-.1245
.298	.216	-.1281
.298	.490	-.0643
.298	.648	-.0772
.298	.794	-.0801
.396	.162	-.1738
.396	.318	-.1796
.396	.680	-.0920
.396	.886	-.0940
.497	.076	-.1587
.497	.505	-.1790
.497	.759	-.1300
.597	.256	-.1983
.700	.257	-.2182
.700	.684	-.2250
.797	.278	-.2250
.895	.512	-.1786
Lower surface		
.120	.033	.1192
.120	.362	.0857
.120	.538	.0226
.120	.696	.0194
.120	.941	.0158
.297	.073	.1375
.297	.796	.0206
.499	.089	.1018
.499	.506	.0178
.499	.768	.0062
.597	.258	.0812
.597	.577	.0252
.697	.263	.0577
.796	.768	.0097

TABLE IV. - PRESSURE DISTRIBUTION ON A 74° SWEPT FLAT ARROW WING MODEL - Continued

(a) $M = 1.60$ - Continued $\alpha = 5.6; C_N = 0.1878$

$y/b/2$	x/c	C_p
Upper surface		
.037	-.1370	
.183	-.0044	
.362	-.0137	
.478	-.0784	
.700	-.0697	
.118	.942	-.0717
.199	.055	-.1444
.199	.251	-.0038
.199	.367	-.0604
.199	.616	-.0797
.199	.884	-.0910
.298	.066	-.1582
.298	.216	-.2126
.298	.490	-.0704
.298	.648	-.0807
.298	.794	-.0913
.396	.162	-.1849
.396	.318	-.2435
.396	.680	-.0771
.396	.886	-.0945
.497	.076	-.1994
.497	.505	-.2387
.497	.759	-.2084
.597	.256	-.2268
.700	.257	-.2249
.700	.684	-.2731
.797	.278	-.2490
.895	.512	-.1788
Lower surface		
.120	.033	.1336
.120	.362	.1072
.120	.538	.0400
.120	.696	.0458
.120	.941	.0310
.297	.073	.1523
.297	.796	.0413
.499	.089	.1021
.499	.506	.0471
.499	.768	.0300
.597	.258	.0969
.597	.577	.0635
.697	.263	.0680
.796	.768	.0580

 $\alpha = 6.8; C_N = 0.2287$

$y/b/2$	x/c	C_p
Upper surface		
.118	.037	-.1700
.118	.183	-.0073
.118	.362	-.0246
.118	.478	-.0922
.118	.700	-.0838
.118	.942	-.0838
.199	.055	-.1703
.199	.251	-.0298
.199	.367	-.0739
.199	.616	-.0928
.199	.884	-.0957
.298	.066	-.1803
.298	.216	-.2498
.298	.490	-.0790
.298	.648	-.0848
.298	.794	-.0970
.396	.162	-.2063
.396	.318	-.2726
.396	.680	-.0964
.396	.886	-.1108
.497	.076	-.2295
.497	.505	-.2768
.497	.759	-.2761
.597	.256	-.2491
.700	.257	-.2334
.700	.684	-.2787
.797	.278	-.2658
.895	.512	-.1755
Lower surface		
.120	.033	.1606
.120	.362	.1249
.120	.538	.0522
.120	.696	.0497
.120	.941	-.0558
.297	.073	.1741
.297	.796	.0522
.499	.089	.1230
.499	.506	.0535
.499	.768	.0484
.597	.258	.1104
.597	.577	.0644
.697	.263	.0950
.796	.768	.0323

TABLE IV. - PRESSURE DISTRIBUTION ON A 74° SWEEP FLAT ARROW WING MODEL - Continued

(a) M = 1.60 - Concluded

$$\alpha = 8.0; C_N = 0.2665$$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Upper surface		
.118	.037	-.1906
.118	.183	-.0049
.118	.362	-.0368
.118	.478	-.1097
.118	.700	-.0997
.118	.942	+.0994
.199	.055	-.2067
.199	.251	-.0949
.199	.367	-.0676
.199	.616	-.1001
.199	.884	-.1151
.298	.066	-.2205
.298	.216	-.2453
.298	.490	-.2119
.298	.648	-.1370
.298	.794	-.1081
.396	.162	-.2491
.396	.318	-.2527
.396	.680	-.1681
.396	.886	-.1521
.497	.076	-.2498
.497	.505	-.2967
.497	.759	-.3333
.597	.256	-.2735
.700	.257	-.2607
.700	.684	-.2976
.797	.278	-.2739
.895	.512	-.1926
Lower surface		
.120	.033	.1724
.120	.362	.1355
.120	.538	.0712
.120	.696	.0841
.120	.941	.0441
.297	.073	.1869
.297	.796	.0734
.499	.089	.1416
.499	.506	.0760
.499	.768	.0677
.597	.258	.1307
.597	.577	.0818
.697	.263	.1130
.796	.768	.0477

$$\alpha = 9.1; C_N = 0.3140$$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Upper surface		
.118	.037	-.2294
.118	.183	-.0317
.118	.362	-.0458
.118	.478	-.1188
.118	.700	-.0982
.118	.942	-.1050
.199	.055	-.2322
.199	.251	-.1599
.199	.367	-.1030
.199	.616	-.1079
.199	.884	-.1288
.298	.066	-.2676
	.216	-.2708
	.490	-.2557
	.648	-.2216
	.794	-.1911
	.162	-.2715
.396	.318	-.2740
	.680	-.2734
	.886	-.2644
.497	.076	-.2766
	.505	-.2792
.497	.759	-.2853
.597	.256	-.2763
.700	.257	-.2798
.700	.684	-.2847
.797	.278	-.2840
.895	.512	-.1917
Lower surface		
.120		
.120		
.120		
.120	.696	.0911
.120	.941	.1098
.297	.073	.0902
.297	.796	.2088
.499	.089	.0892
.499	.506	.1670
.499	.768	.0943
.597	.258	.0873
.597	.577	.1487
.697	.263	.1085
.796	.768	.1384
		.0693

TABLE IV. - PRESSURE DISTRIBUTIONON A 74° SWEPT FLAT ARROW WING MODEL - Continued

(b) $M = 2.02$ $\alpha = -3.0; C_N = -0.0834$

$y/b/2$	x/c	C_p
---------	-------	-------

Upper surface

.118	.037	.1132
.118	.183	.0868
.118	.362	.0681
.118	.478	.0102
.118	.700	.0194
.118	.942	.0053
.199	.055	.1089
.199	.251	.0688
.199	.367	.0477
.199	.616	.0122
.199	.884	.0029
.298	.066	.0885
.298	.216	.0822
.298	.490	.0151
.298	.648	.0122
.298	.794	.0006
.396	.162	.0822
.396	.318	.0296
.396	.680	-.0033
.396	.886	-.0132
.497	.076	.0855
.497	.505	.0207
.497	.759	-.0056
.597	.256	.0358
.700	.257	-.0145
.700	.684	-.0198
.797	.278	.0339
.895	.512	.0098

Lower surface

.120	.033	-.0494
.120	.362	.0095
.120	.538	-.0365
.120	.696	-.0369
.120	.941	-.0421
.297	.073	-.0352
.297	.796	-.0375
.499	.089	-.0816
.499	.506	-.0718
.499	.768	-.0763
.597	.258	-.0974
.597	.577	-.1033
.697	.263	-.1287
.796	.768	-.1471

 $\alpha = -0.8; C_N = -0.0218$

$y/b/2$	x/c	C_p
---------	-------	-------

Upper surface

.118	.037	.0819
.118	.183	.0753
.118	.362	.0720
.118	.478	-.0089
.118	.700	-.0040
.118	.942	-.0043
.199	.055	.0753
.199	.251	.0408
.199	.367	.0240
.199	.616	-.0122
.199	.884	-.0204
.298	.066	.0549
.298	.216	.0530
.298	.490	-.0096
.298	.648	-.0122
.298	.794	-.0217
.396	.162	.0135
.396	.318	.0053
.396	.680	-.0346
.396	.886	-.0382
.497	.076	.0605
.497	.505	-.0076
.497	.759	-.0365
.597	.256	-.0017
.700	.257	-.0537
.700	.684	-.0513
.797	.278	-.0063
.895	.512	-.0352

Lower surface

.120	.033	.0319
.120	.362	.0306
.120	.538	-.0267
.120	.696	-.0270
.120	.941	-.0280
.297	.073	.0342
.297	.796	-.0375
.499	.089	.0246
.499	.506	-.0434
.499	.768	-.0530
.597	.258	-.0204
.597	.577	-.0576
.697	.263	-.0425
.796	.768	-.0925

TABLE IV. - PRESSURE DISTRIBUTION ON A 74° SWEEP FLAT ARROW WING MODEL - Continued

(b) $M = 2.02$ - Continued $\alpha = 0.3; C_N = 0.0100$ $\alpha = 1.4; C_N = 0.0408$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p	$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Upper surface					
.118	.037	.0589	.118	.037	.043
.118	.183	.0460	.118	.183	.031
.118	.362	.0286	.118	.362	.019
.118	.478	-.0234	.118	.478	-.032
.118	.700	-.0217	.118	.700	-.026
.118	.942	-.0208	.118	.942	-.034
.199	.055	.0549	.199	.055	.041
.199	.251	.0289	.199	.251	.017
.199	.367	.0118	.199	.367	.001
.199	.616	-.0329	.199	.616	-.035
.199	.884	-.0342	.199	.884	-.043
.298	.066	.0454	.298	.066	.025
.298	.216	.0283	.298	.216	.009
.298	.490	-.0231	.298	.490	-.036
.298	.648	-.0260	.298	.648	-.036
.298	.794	-.0349	.298	.794	-.044
.396	.162	-.0076	.396	.162	-.016
.396	.318	-.0461	.396	.318	-.022
.396	.680	-.0487	.396	.680	-.057
.396	.886	-.0487	.396	.886	-.058
.497	.076	.0335	.497	.076	-.001
.497	.505	-.0214	.497	.505	-.038
.497	.759	-.0487	.497	.759	-.061
.597	.256	-.0264	.597	.256	-.042
Lower surface					
.790	.257	-.0767	.700	.257	-.105
.700	.684	-.0731	.700	.684	-.090
.797	.278	-.0375	.797	.278	-.079
.895	.512	-.0685	.895	.512	-.156
.120	.033	.0388	.120	.033	.078
.120	.362	-.0198	.120	.362	.050
.120	.538	-.0168	.120	.538	-.008
.120	.696	-.0198	.120	.696	-.002
.120	.941	-.0204	.297	.941	-.014
.297	.073	.0480	.297	.073	.088
.297	.796	-.0217	.297	.796	-.017
.499	.089	.0454	.499	.089	.066
.499	.506	-.0253	.499	.506	-.011
.499	.768	-.0227	.499	.768	-.016
.597	.258	-.0033	.597	.258	.025
.597	.577	-.0319	.597	.577	-.020
.697	.263	-.0277	.697	.263	.010
.796	.768	-.0316	.796	.768	-.046



TABLE IV. - PRESSURE DISTRIBUTION ON A 74° SWEPT FLAT ARROW WING MODEL - Continued

(b) $M = 2.02$ - Continued $\alpha = 2.6; C_N = 0.0722$

$y/b/2$	x/c	C_p
Upper surface		

.118	.037	.0036
.118	.183	.0214
.118	.362	.0085
.118	.478	-.0434
.118	.700	-.0379
.118	.942	-.0398
.199	.055	.0066
.199	.251	.0013
.199	.367	-.0451
.199	.616	-.0487
.199	.884	-.0513
.298	.066	-.0303
.298	.216	-.0063
.298	.490	-.0481
.298	.648	-.0513
.298	.794	-.0573
.396	.162	-.0237
.396	.318	-.0382
.396	.680	-.0635
.396	.886	-.0635
.497	.076	-.0859
.497	.505	-.0622
.497	.759	-.0629
.597	.256	-.0829
.700	.257	-.1481
.700	.684	-.1089
.797	.278	-.1645
.895	.512	-.1902

Lower surface

.120	.033	.0921
.120	.362	.0605
.120	.538	-.0000
.120	.696	-.0036
.120	.941	-.0066
.297	.073	.1073
.297	.796	-.0096
.499	.089	.0826
.499	.506	-.0096
.499	.768	-.0096
.597	.258	.0418
.597	.577	-.0083
.697	.263	.0276
.796	.768	-.0296

 $\alpha = 3.7; C_N = 0.1047$

$y/b/2$	x/c	C_p
Upper surface		

.118	.037	-.0610
.118	.183	.0086
.118	.362	-.0019
.118	.478	-.0518
.118	.700	-.0469
.118	.942	-.0476
.199	.055	-.0607
.199	.251	-.0022
.199	.367	-.0209
.199	.616	-.0581
.199	.884	-.0594
.298	.066	-.0837
.298	.216	-.0315
.298	.490	-.0571
.298	.648	-.0571
.298	.794	-.0581
.396	.162	-.0834
.396	.318	-.0814
.396	.680	-.0712
.396	.886	-.0807
.497	.076	-.1271
.497	.505	-.1014
.497	.759	-.0945
.597	.256	-.1287
.597	.577	-.1271
.700	.684	-.1616
.797	.278	-.1638
.895	.512	-.1658

Lower surface

.120	.033	.1078
.120	.362	.0743
.120	.538	.0142
.120	.696	.0231
.120	.941	.0070
.297	.073	.1259
.297	.796	.0066
.499	.089	.1022
.499	.506	.0056
.499	.768	.0056
.597	.258	.0661
.597	.577	.0145
.697	.263	.0503
.796	.768	-.0075

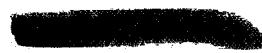


TABLE IV. - PRESSURE DISTRIBUTION ON A 74^0 SWEPT FLAT ARROW WING MODEL - Continued(b) $M = 2.02$ - Continued

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p	$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Upper surface					
Upper surface					
.118	.037	-.0954	.118	.037	-.1173
.118	.183	-.0048	.118	.183	-.0048
.118	.362	-.0199	.118	.362	-.0238
.118	.478	-.0695	.118	.478	-.0707
.118	.700	-.0688	.118	.700	-.0704
.118	.942	-.0685	.118	.942	-.0704
.199	.055	-.1069	.199	.055	-.1232
.199	.251	-.0153	.199	.251	-.0146
.199	.367	-.0340	.199	.367	-.0353
.199	.616	-.0797	.199	.616	-.0766
.199	.884	-.0800	.199	.884	-.0765
.298	.066	-.1187	.298	.066	-.1330
.298	.216	-.1151	.298	.216	-.1737
.298	.490	-.0698	.298	.490	-.0658
.298	.648	-.0754	.298	.648	-.0743
.298	.794	-.0816	.298	.794	-.0756
.396	.162	-.1433	.396	.162	-.1517
.396	.318	-.1496	.396	.318	-.1927
.396	.680	-.0715	.396	.680	-.0822
.396	.886	-.0948	.396	.886	-.0940
.497	.076	-.1309	.497	.076	-.1550
.497	.505	-.1706	.497	.505	-.2006
.497	.759	-.1706	.497	.759	-.1995
.597	.256	-.1617	.597	.256	-.1884
.700	.257	-.1939	.700	.257	-.1981
.700	.684	-.1945	.700	.684	-.2091
.797	.278	-.1935	.797	.278	-.2021
.895	.512	-.1781	.895	.512	-.1770
Lower surface					
.120	.033	.1104	.120	.033	.1389
.120	.362	.0769	.120	.362	.1011
.120	.538	.0188	.120	.538	.0411
.120	.696	.0247	.120	.696	.0454
.120	.941	.0109	.120	.941	.0301
.297	.073	.1235	.297	.073	.1497
.297	.796	.0100	.297	.796	.0321
.499	.089	.1045	.499	.089	.124
.499	.506	.0264	.499	.506	.0526
.499	.768	.0034	.499	.768	.027
.597	.258	.0654	.597	.258	.0921
.597	.577	.0191	.597	.577	.0434
.697	.263	.0576	.697	.263	.0801
.796	.768	.0001	.796	.768	.0241

TABLE IV .- PRESSURE DISTRIBUTION ON A 74° SWEPT FLAT ARROW WING MODEL - Continued

(b) $M = 2.02$ - Concluded $\alpha = 7.1; C_N = 0.2085$ $\alpha = 8.2; C_N = 0.2414$

$y/b/2$	x/c	C_p
Upper surface		
.118	.037	-.1378
.118	.183	-.0054
.118	.362	-.0293
.118	.478	-.0791
.118	.700	-.0758
.118	.942	-.0840
.199	.055	-.1404
.199	.251	-.0336
.199	.367	-.0392
.199	.616	-.0847
.199	.884	-.0899
.298	.066	-.1571
.298	.216	-.2063
.298	.490	-.0837
.298	.648	-.0795
.298	.794	-.0896
.396	.162	-.1712
.396	.318	-.2099
.396	.680	-.1528
.396	.886	-.1099
.497	.076	-.1738
.497	.505	-.2085
.497	.759	-.2361
.597	.256	-.2004
.700	.257	-.2020
.700	.684	-.2141
.797	.278	-.2125
.895	.512	-.1830
Lower surface		
.120	.033	.1536
.120	.362	.1178
.120	.538	.0565
.120	.696	.0615
.120	.941	.0441
.297	.073	.1647
.297	.796	.0460
.499	.089	.1378
.499	.506	.0706
.499	.768	.0464
.597	.258	.1073
.597	.577	.0618
.697	.263	.0995
.796	.768	.0434

$y/b/2$	x/c	C_p
Upper surface		
.118	.037	-.1581
.118	.183	-.0303
.118	.362	-.0447
.118	.478	-.0929
.118	.700	-.0883
.118	.942	-.0955
.199	.055	-.1696
.199	.251	-.1184
.199	.367	-.0627
.199	.616	-.0935
.199	.884	-.0971
.298	.066	-.1719
.298	.216	-.2017
.298	.490	-.1322
.298	.648	-.0955
.298	.794	-.0965
.396	.162	-.1853
.396	.318	-.2158
.396	.680	-.2207
.396	.886	-.1643
.497	.076	-.1945
.497	.505	-.2128
.497	.759	-.2489
.597	.256	-.2135
.700	.257	-.2099
.700	.684	-.2298
.797	.278	-.2236
.895	.512	-.1889
Lower surface		
.120	.033	.1627
.120	.362	.1306
.120	.538	.0690
.120	.696	.0775
.120	.941	.0595
.297	.073	.1786
.297	.796	.0616
.499	.089	.1545
.499	.506	.0867
.499	.768	.0624
.597	.258	.1300
.597	.577	.0776
.697	.263	.1142
.796	.768	.0595

CONTINUED

TABLE IV. - PRESSURE DISTRIBUTION ON A 74° SWEPT FLAT ARROW WING MODEL - Continued

(c) $M = 2.36$ $\alpha = -3.4; C_N = -0.0837$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
-----------------	---------------	-------

Upper surface

.118	.037	.1062
.118	.183	.0941
.118	.362	.0777
.118	.478	.0270
.118	.700	.0270
.118	.942	.0261
.199	.055	.1108
.199	.251	.0804
.199	.367	.0568
.199	.616	.0146
.199	.884	.0146
.298	.066	.1082
.298	.216	.0810
.298	.490	.0303
.298	.648	.0208
.298	.794	.0146
.396	.162	.0908
.396	.318	.0486
.396	.680	-.0027
.396	.886	-.0067
.497	.076	.0915
.497	.505	.0231
.497	.759	.0051
.597	.256	.0385
.700	.257	-.0014
.700	.684	-.0008
.797	.278	.0382
.895	.512	.0192

Lower surface

.120	.033	-.0312
.120	.362	.0117
.120	.538	-.0308
.120	.696	-.0302
.120	.941	-.0318
.297	.073	-.0560
.297	.796	-.0462
.499	.089	-.0793
.499	.506	-.0586
.499	.768	-.0658
.597	.258	-.0904
.597	.577	-.0855
.697	.263	-.1165
.796	.768	-.1175

 $\alpha = -1.1; C_N = -0.0244$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
-----------------	---------------	-------

Upper surface

.118	.037	.0715
.118	.183	.0528
.118	.362	.0408
.118	.478	-.0017
.118	.700	-.0001
.118	.942	-.0020
.199	.055	.0718
.199	.251	.0444
.199	.367	.0267
.199	.616	-.0092
.199	.884	-.0164
.298	.066	.0695
.298	.216	.0476
.298	.490	-.0004
.298	.648	-.0089
.298	.794	-.0190
.396	.162	.0561
.396	.318	.0228
.396	.680	-.0207
.396	.886	-.0278
.497	.076	.0633
.497	.505	-.0037
.497	.759	-.0187
.597	.256	.0159
.700	.257	-.0340
.700	.684	-.0363
.797	.278	.0107
.895	.512	-.0154

Lower surface

.120	.033	.0346
.120	.362	.0189
.120	.538	-.0174
.120	.696	-.0190
.120	.941	-.0220
.297	.073	.0346
.297	.796	-.0321
.499	.089	.0222
.499	.506	-.0357
.499	.768	-.0504
.597	.258	.0016
.597	.577	-.0406
.697	.263	-.0105
.796	.768	-.0719

TABLE IV. - PRESSURE DISTRIBUTION ON A 74° SWEPT FLAT ARROW WING MODEL - Continued

(c) $M = 2.36$ - Continued $\alpha = 0; C_N = 0.0016$ $\alpha = 1.1; C_N = 0.0313$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
-----------------	---------------	-------

Upper surface

.118	.037	.0532
.118	.183	.0444
.118	.362	.0320
.118	.478	-.0118
.118	.700	-.0086
.118	.942	-.0109
.199	.055	.0574
.199	.251	.0329
.199	.367	.0192
.199	.616	-.0138
.199	.884	-.0197
.298	.066	.0460
.298	.216	.0306
.298	.490	-.0092
.298	.648	-.0174
.298	.794	-.0252
.396	.162	.0440
.396	.318	.0094
.396	.680	-.0305
.396	.886	-.0305
.497	.076	.0460
.497	.505	-.0138
.497	.759	-.0141
.597	.256	.0058
.700	.257	-.0533
.700	.684	-.0523
.797	.278	-.0102
.895	.512	-.0386

Lower surface

.120	.033	.0551
.120	.362	.0329
.120	.538	-.0164
.120	.696	-.0112
.120	.941	-.0151
.297	.073	.0395
.297	.796	-.0262
.499	.089	.0306
.499	.506	-.0239
.499	.768	-.0412
.597	.258	.0127
.597	.577	-.0331
.697	.263	-.0066
.796	.768	-.0605

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
-----------------	---------------	-------

Upper surface

.118	.037	.0391
.118	.183	.0345
.118	.362	.0188
.118	.478	-.0235
.118	.700	-.0235
.118	.942	-.0255
.199	.055	.0361
.199	.251	.0208
.199	.367	.0068
.199	.616	-.0310
.199	.884	-.0320
.298	.066	.0149
.298	.216	.0061
.298	.490	-.0271
.298	.648	-.0343
.298	.794	-.0369
.396	.162	.0126
.396	.318	-.0079
.396	.680	-.0464
.396	.886	-.0483
.497	.076	-.0278
.497	.505	-.0366
.497	.759	-.0477
.597	.256	-.0209
.700	.257	-.0770
.700	.684	-.0728
.797	.278	-.0558
.895	.512	-.0816

Lower surface

.120	.033	.0818
.120	.362	.0482
.120	.538	-.0030
.120	.696	.0012
.120	.941	-.0076
.297	.073	.0687
.297	.796	-.0164
.499	.089	.0505
.499	.506	-.0154
.499	.768	-.0304
.597	.258	.0283
.597	.577	-.0170
.697	.263	.0182
.796	.768	-.0431

TABLE IV. - PRESSURE DISTRIBUTION ON A 74° SWEPT FLAT ARROW WING MODEL - Continued

(e) $M = 2.36$ - Continued $\alpha = 2.2; C_N = 0.0612$

$y/b/2$	x/c	C_p
per surface		
.118	.037	-.0237
.118	.183	.0156
.118	.362	.0130
.118	.478	-.0306
.118	.700	-.0339
.118	.942	-.0362
.199	.055	-.0218
.199	.251	.0051
.199	.367	-.0011
.199	.616	-.0414
.199	.884	-.0427
.298	.066	-.0607
.298	.216	.0015
.298	.490	-.0381
.298	.648	-.0457
.298	.794	-.0443
.396	.162	-.0335
.396	.318	-.0087
.396	.680	-.0562
.396	.886	-.0601
.497	.076	-.0797
.497	.505	-.0588
.497	.759	-.0565
.597	.256	-.0748
Lower surface		
.700	.257	-.1036
.700	.684	-.0984
.797	.278	-.1213
.895	.512	-.1275

 $\alpha = 3.3; C_N = 0.0893$

$y/b/2$	x/c	C_p
Upper surface		
.118	.037	-.0346
.118	.183	.0110
.118	.362	.0031
.118	.478	-.0385
.118	.700	-.0379
.118	.942	-.0379
.199	.055	-.0464
.199	.251	-.0018
.199	.367	-.0117
.199	.616	-.0415
.199	.884	-.0520
.298	.066	-.0730
.298	.216	-.0130
.298	.490	-.0422
.298	.648	-.0399
.298	.794	-.0503
.396	.162	-.0579
.396	.318	-.0422
.396	.680	-.0697
.396	.886	-.0697
.497	.076	-.0933
.497	.505	-.0848
.497	.759	-.0811
.597	.256	-.1084
Lower surface		
.700	.257	-.1366
.700	.684	-.1290
.797	.278	-.1366
.895	.512	-.1379
Lower surface		
.120	.033	.0886
.120	.362	.0542
.120	.538	.0025
.120	.696	.0064
.120	.941	-.0024
.297	.073	.0755
.297	.796	-.0070
.499	.089	.0775
.499	.506	-.0018
.499	.768	-.0178
.597	.258	.0375
.597	.577	-.0054
.697	.263	.0339
.796	.768	-.0257
.120	.033	.1126
.120	.362	.0650
.120	.538	.0129
.120	.696	.0195
.120	.941	.0136
.297	.073	.1018
.297	.796	-.0067
.499	.089	.1031
.499	.506	.0227
.499	.768	.0001
.597	.258	.0621
.597	.577	.0142
.697	.263	.0506
.796	.768	-.0068

TABLE IV. - PRESSURE DISTRIBUTION ON A 74° SWEPT FLAT ARROW WING MODEL - Continued

(c) $M = 2.36$ - Continued $\alpha = 4.4; C_N = 0.1197$ $\alpha = 5.6; C_N = 0.1556$

$y/b/2$	x/c	C_p
---------	-------	-------

Upper surface

.118	.037	-.0628
.118	.183	.0021
.118	.362	-.0094
.118	.478	-.0536
.118	.700	-.0513
.118	.942	-.0516
.199	.055	-.0635
.199	.251	-.0087
.199	.367	-.0218
.199	.616	-.0516
.199	.884	-.0602
.298	.066	-.0953
.298	.216	-.0936
.298	.490	-.0484
.298	.648	-.0576
.298	.794	-.0651
.396	.162	-.1064
.396	.318	-.1048
.396	.680	-.0776
.396	.886	-.0749
.497	.076	-.1071
.497	.505	-.1221
.497	.759	-.1202
.597	.256	-.1369
.700	.257	-.1487
.700	.684	-.1451
.797	.278	-.1379
<u>.895</u>	<u>.512</u>	<u>-.1310</u>

Lower surface

.120	.033	.1306
.120	.988	.0831
.120	.538	.0329
.120	.696	.0241
.120	.941	.0241
.297	.073	.1395
.297	.796	.0244
.499	.089	.1123
.499	.506	.0336
.499	.768	.0096
.597	.258	.0654
.597	.577	.0231
.697	.263	.0667
.796	.768	.0067

$y/b/2$	x/c	C_p
---------	-------	-------

Upper surface

.118	.478	-.0521
.118	.700	-.0527
.118	.942	-.0580
.199	.055	-.1010
.199	.251	-.0324
.199	.367	-.0255
.199	.616	-.0613
.199	.884	-.0655
.298	.066	-.1079
.298	.216	-.1230
.298	.490	-.0524
.298	.648	-.0521
.298	.794	-.0668
.396	.162	-.1158
.396	.318	-.1417
.396	.680	-.0918
.396	.886	-.0734
.497	.076	-.1272
.497	.505	-.1420
.497	.759	-.1407
.597	.256	-.1479

Lower surface

.120	.033	.1343
.120	.362	.0926
.120	.538	.0372
.120	.696	.0375
.120	.941	.0356
.297	.073	.1537
.297	.796	.0316
.499	.089	.1301
.499	.506	.0506
.499	.768	.0290
.597	.258	.0992
.597	.577	.0526
.697	.263	.0858
.796	.768	.0306

TABLE IV. - PRESSURE DISTRIBUTION ON A 74° SWEPT FLAT ARROW WING MODEL - Continued

(c) $M = 2.36$ - Concluded $\alpha = 6.7; C_N = 0.1855$ $\alpha = 7.9; C_N = 0.2152$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Upper surface		
.118	.037	-.115
.118	.183	-.008
.118	.362	-.025
.118	.478	-.058
.118	.700	-.056
.118	.942	-.063
.199	.055	-.110
.199	.251	-.053
.199	.367	-.034
.199	.616	-.074
.199	.884	-.075
.298	.066	-.134
.298	.216	-.149
.298	.490	-.067
.298	.648	-.068
.298	.794	-.077
.396	.162	-.147
.396	.318	-.159
.396	.680	-.147
.396	.886	-.115
.497	.076	-.148
.497	.505	-.152
.497	.759	-.164
.597	.256	-.160
.700	.257	-.162
.700	.684	-.166
.797	.278	-.154
.895	.512	-.136
Lower surface		
.120	.033	.153
.120	.362	.111
.120	.538	.048
.120	.696	.046
.120	.941	.033
.297	.073	.154
.297	.796	.036
.499	.089	.140
.499	.506	.062
.499	.768	.039
.597	.258	.099
.597	.577	.054
.697	.263	.088
.796	.768	.037

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Upper surface		
.118	.037	-.1282
.118	.183	-.0231
.118	.362	-.0342
.118	.478	-.0715
.118	.700	-.0719
.118	.942	-.0771
.199	.055	-.1318
.199	.251	-.1089
.199	.367	-.0349
.199	.616	-.0748
.199	.884	-.0791
.298	.066	-.1554
.298	.216	-.1580
.298	.490	-.1537
.298	.648	-.1439
.298	.794	-.0905
.396	.162	-.1547
.396	.318	-.1583
.396	.680	-.1586
.396	.886	-.1540
.497	.076	-.1586
.497	.505	-.1596
.497	.759	-.1603
.597	.256	-.1603
.700	.257	-.1616
.700	.684	-.1616
.797	.278	-.1626
.895	.512	-.1426
Lower surface		
.120	.033	.1593
.120	.362	.1190
.120	.538	.0729
.120	.696	.0647
.120	.941	.0529
.297	.073	.1858
.297	.796	.0634
.499	.089	.1587
.499	.506	.0775
.499	.768	.0575
.597	.258	.1357
.597	.577	.0788
.697	.263	.1217
.796	.768	.0621

TABLE IV. - PRESSURE DISTRIBUTION ON A 74° SWEPT FLAT ARROW WING MODEL - Continued(d) $M = 2.50$ $\alpha = -3.0; C_N = -0.0684$

$y/b/2$	x/c	C_p
Upper surface		
.118	.037	.0882
.118	.183	.0669
.118	.362	.0570
.118	.478	.0112
.118	.700	.0123
.118	.942	.0126
.199	.055	.0882
.199	.251	.0533
.199	.367	.0536
.199	.616	.0163
.199	.884	.0102
.298	.066	.0849
.298	.216	.0669
.298	.490	.0204
.298	.648	.0136
.298	.794	.0095
.396	.162	.0754
.396	.318	.0407
.396	.680	.0014
.396	.886	-.0054
.497	.076	.0849
.497	.505	.0214
.497	.759	.0048
.597	.256	.0404
.700	.257	-.0027
.700	.684	-.0074
.797	.278	.0357
.895	.512	.0160
Lower surface		
.120	.033	-.0220
.120	.362	.0048
.120	.538	-.0356
.120	.696	-.0329
.120	.941	-.0356
.297	.073	-.0397
.297	.796	-.0499
.499	.089	-.0705
.499	.506	-.0451
.499	.768	-.0651
.597	.258	-.0821
.597	.577	-.0715
.597	.263	-.1055
.796	.768	-.1116

 $\alpha = -0.8; C_N = -0.0181$

$y/b/2$	x/c	C_p
Upper surface		
.118	.037	.0560
.118	.183	.0397
.118	.362	.0309
.118	.478	-.0115
.118	.700	-.0112
.118	.942	-.0112
.199	.055	.0553
.199	.251	.0299
.199	.367	.0174
.199	.616	-.0135
.199	.884	-.0142
.298	.066	.0472
.298	.216	.0316
.298	.490	-.0064
.298	.648	-.0064
.298	.794	-.0156
.396	.162	.0357
.396	.318	.0119
.396	.680	-.0237
.396	.886	-.0301
.497	.076	.0397
.497	.505	-.0118
.497	.759	-.0291
.597	.256	.0119
.700	.257	-.0356
.700	.684	-.0366
.797	.278	-.0007
.895	.512	-.0176
Lower surface		
.120	.033	.0421
.120	.362	.0231
.120	.538	-.0213
.120	.696	-.0176
.120	.941	-.0237
.297	.073	.0346
.297	.796	-.0312
.499	.089	.0197
.499	.506	-.0298
.499	.768	-.0451
.597	.258	.0024
.597	.577	-.0397
.697	.263	-.0105
.796	.768	-.0638

TABLE IV. - PRESSURE DISTRIBUTION ON A 74° SWEPT FLAT ARROW WING MODEL - Continued

(d) $M = 2.50$ - Continued $\alpha = 0.2; C_N = 0.0062$ $\alpha = 1.4; C_N = 0.0364$

y $b/2$	x c	C_p
--------------	------------	-------

Upper surface

.118	.037	.0329
.118	.183	.0251
.118	.362	.0241
.118	.478	-.0135
.118	.700	-.0135
.118	.942	-.0135
.199	.055	.0374
.199	.251	.0184
.199	.367	.0112
.199	.616	-.0210
.199	.884	-.0261
.298	.066	.0211
.298	.216	.0157
.298	.490	-.0200
.298	.648	-.0257
.298	.794	-.0301
.396	.162	.0177
.396	.318	.0007
.396	.680	-.0352
.396	.886	-.0383
.497	.076	.0221
.497	.505	-.0200
.497	.759	-.0335
.597	.256	-.0044
.700	.257	-.0519
.700	.684	-.0519
.797	.278	-.0237
.895	.512	-.0475

y $b/2$	x c	C_p
--------------	------------	-------

Upper surface

.118	.037	-.0291
.118	.183	.0116
.118	.362	.0044
.118	.478	-.0305
.118	.700	-.0261
.118	.942	-.0305
.199	.055	-.0220
.199	.251	.0055
.199	.367	-.0020
.199	.616	-.0383
.199	.884	-.0403
.298	.066	-.0403
.298	.216	-.0054
.298	.490	-.0359
.298	.648	-.0329
.298	.794	-.0431
.396	.162	-.0044
.396	.318	-.0152
.396	.680	-.0465
.396	.886	-.0546
.497	.076	-.0400
.497	.505	-.0386
.497	.759	-.0515
.597	.256	-.0152
.700	.257	-.0756
.700	.684	-.0648
.797	.278	-.0648
.895	.512	-.0926

Lower surface		
.120	.033	.0567
.120	.362	.0279
.120	.538	-.0142
.120	.696	-.0132
.120	.941	-.0186
.297	.073	.0455
.297	.796	-.0210
.499	.089	.0380
.499	.506	-.0176
.499	.768	-.0295
.597	.258	.0174
.597	.577	-.0268
.697	.263	.0058
.796	.768	-.0485

Lower surface		
.120	.033	.0723
.120	.362	.0407
.120	.538	-.0017
.120	.696	-.0024
.120	.941	-.0085
.297	.073	.0774
.297	.796	-.0156
.499	.089	.0618
.499	.506	-.0013
.499	.768	-.0240
.597	.258	.0326
.597	.577	-.0159
.697	.263	.0235
.796	.768	-.0325

TABLE IV. - PRESSURE DISTRIBUTION ON A 74° SWEPT FLAT ARROW WING MODEL - Continued

(d) $M = 2.50$ - Continued $a = 2.4; C_N = 0.0577$

y $b/2$	x c	C_p
Upper surface		
.118	.037	-.0407
.118	.183	.0072
.118	.362	.0014
.118	.478	-.0356
.118	.700	-.0373
.118	.942	-.0414
.199	.055	-.0407
.199	.251	.0000
.199	.367	-.0118
.199	.616	-.0441
.199	.884	-.0471
.298	.066	-.0604
.298	.216	-.0112
.298	.490	-.0356
.298	.648	-.0424
.298	.794	-.0519
.396	.162	-.0305
.396	.318	-.0308
.396	.680	-.0597
.396	.886	-.0597
.497	.076	-.0712
.497	.505	-.0458
.497	.759	-.0604
.597	.256	-.0668
.700	.257	-.1024
.700	.684	-.0841
.797	.278	-.1079
.895	.512	-.1204

 $a = 3.5; C_N = 0.0868$

y $b/2$	x c	C_p
Upper surface		
,118	.037	-.066
,118	.183	.001
,118	.362	-.005
,118	.478	-.040
,118	.700	-.035
,118	.942	-.041
,199	.055	-.066
,199	.251	-.007
,199	.367	-.019
,199	.616	-.050
,199	.884	-.051
,298	.066	-.072
,298	.216	-.053
,298	.490	-.042
,298	.648	-.048
,298	.794	-.054
,396	.162	-.072
,396	.318	-.048
,396	.680	-.065
,396	.886	-.065
,497	.076	-.086
,497	.505	-.078
,497	.759	-.074
,597	.256	-.096
,700	.257	-.1323
,700	.684	-.1068
,797	.278	-.1255
,895	.512	-.1296

Lower surface**Lower surface**

.120	.033	.0865
.120	.362	.0550
.120	.538	.0078
.120	.696	.0095
.120	.941	-.0013
.297	.073	.0855
.297	.796	-.0061
.499	.089	.0808
.499	.506	.0041
.499	.768	-.0146
.597	.258	.0472
.597	.577	.0058
.697	.263	.0458
.796	.768	-.0118

.120	.033	.0981
.120	.362	.0638
.120	.538	.0180
.120	.696	.0099
.120	.941	.0024
.297	.073	.0960
.297	.796	.0055
.499	.089	.1008
.499	.506	.0231
.499	.768	-.0020
.597	.258	.0659
.597	.577	.0197
.697	.263	.0567
.796	.768	.0051

TABLE IV. - PRESSURE DISTRIBUTION ON A 74° SWEPT FLAT ARROW WING MODEL - Continued

(d) $M = 2.50$ - Continued $a = 4.7; C_N = 0.1176$ $a = 5.8; C_N = 0.1479$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
-----------------	---------------	-------

Upper surface

.118	.037	-.0780
.118	.183	-.0003
.118	.362	-.0132
.118	.478	-.0495
.118	.700	-.0461
.118	.942	-.0512
.199	.055	-.0793
.199	.251	-.0118
.199	.367	-.0230
.199	.616	-.0529
.199	.884	-.0570
.298	.066	-.0946
.298	.216	-.0732
.298	.490	-.0465
.298	.648	-.0553
.298	.794	-.0600
.396	.162	-.0984
.396	.318	-.1048
.396	.680	-.0760
.396	.886	-.0756
.497	.076	-.1038
.497	.505	-.1089
.497	.759	-.1089
.597	.256	-.1177
.700	.257	-.1404
.700	.684	-.1387
.797	.278	-.1340
.895	.512	-.1231

Lower surface

.120	.033	.1178
.120	.362	.0832
.120	.538	.0319
.120	.696	.0279
.120	.941	.0211
.297	.073	.1188
.297	.796	.0190
.499	.089	.1100
.499	.506	.0316
.499	.768	.0167
.597	.258	.0777
.597	.577	.0289
.697	.263	.0672
.796	.768	.0129

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
-----------------	---------------	-------

Upper surface

.118	.037	-.1018
.118	.183	-.0030
.118	.362	-.0166
.118	.478	-.0560
.118	.700	-.0536
.118	.942	-.0583
.199	.055	-.0967
.199	.251	-.0488
.199	.367	-.0234
.199	.616	-.0610
.199	.884	-.0658
.298	.066	-.1072
.298	.216	-.1248
.298	.490	-.0770
.298	.648	-.0563
.298	.794	-.0658
.396	.162	-.1123
.396	.318	-.1245
.396	.680	-.1072
.396	.886	-.0749
.497	.076	-.1068
.497	.505	-.1272
.497	.759	-.1272
.597	.256	-.1292
.700	.257	-.1469
.700	.684	-.1489
.797	.278	-.1472
.895	.512	-.1306

Lower surface

.120	.033	.1381
.120	.362	.0971
.120	.538	.0431
.120	.696	.0384
.120	.941	.0343
.297	.073	.1469
.297	.796	.0306
.499	.089	.1290
.499	.506	.0550
.499	.768	.0313
.597	.258	.0859
.597	.577	.0374
.697	.263	.0757
.796	.768	.0272

TABLE IV. - PRESSURE DISTRIBUTION ON A 74° SWEPT FLAT ARROW WING MODEL - Continued

(d) $M = 2.50$ - Concluded $\alpha = 6.9; C_N = 0.1649$

$y/b/2$	x/c	C_p
Upper surface		
.118	.037	-.1104
.118	.183	-.0169
.118	.362	-.0264
.118	.478	-.0630
.118	.700	-.0633
.118	.942	-.0674
.199	.055	-.1124
.199	.251	-.0955
.199	.367	-.0260
.199	.616	-.0677
.199	.884	-.0680
.298	.066	-.1182
.298	.216	-.1283
.298	.490	-.0887
.298	.648	-.0660
.298	.794	-.0684
.396	.162	-.1199
.396	.318	-.1371
.396	.680	-.1371
.396	.886	-.1077
.497	.076	-.1307
.497	.505	-.1409
.497	.759	-.1517
.597	.256	-.1456
.700	.257	-.1551
.700	.684	-.1551
.797	.278	-.1551
.895	.512	-.1378
Lower surface		
.120	.033	.1434
.120	.362	.1058
.120	.538	.0526
.120	.696	.0590
.120	.941	.0435
.297	.073	.1593
.297	.796	.0462
.499	.089	.1431
.499	.506	.0675
.499	.768	.0489
.597	.258	.1139
.597	.577	.0641
.697	.263	.1058
.796	.768	.0479

 $\alpha = 8.0; C_N = 0.2027$

$y/b/2$	x/c	C_p
Upper surface		
.118	.037	-.1280
.118	.183	-.0792
.118	.362	-.0355
.118	.478	-.0691
.118	.700	-.0691
.118	.942	-.0701
.199	.055	-.1270
.199	.251	-.1433
.199	.367	-.0809
.199	.616	-.0731
.199	.884	-.0795
.298	.066	-.1368
.298	.216	-.1426
.298	.490	-.1626
.298	.648	-.1195
.298	.794	-.0861
.396	.162	-.137
.396	.318	-.1561
.396	.680	-.1748
.396	.886	-.1639
.497	.076	-.1450
.497	.505	-.152
.497	.759	-.1611
.597	.256	-.1534
.700	.257	-.1605
.700	.684	-.1674
.797	.278	-.1601
.895	.512	-.1395
Lower surface		
.120	.033	.1711
.120	.362	.1331
.120	.538	.0741
.120	.696	.077
.120	.941	.0641
.297	.073	.1751
.297	.796	.0591
.499	.089	.1491
.499	.506	.084
.499	.768	.0571
.597	.258	.124
.597	.577	.082
.697	.263	.1224
.796	.768	.0641

TABLE IV. - PRESSURE DISTRIBUTION ON A 74° SWEPT FLAT ARROW WING MODEL - Continued

(e) $M = 2.65$ $\alpha = -2.4; C_N = -0.0508$

$y/b/2$	x/c	C_p
Upper surface		
.118	.037	.0659
.118	.183	.0532
.118	.362	.0423
.118	.478	.0056
.118	.700	.0056
.118	.942	.0056
.199	.055	.0648
.199	.251	.0430
.199	.367	.0331
.199	.616	-.0004
.199	.884	-.0018
.298	.066	.0659
.298	.216	.0479
.298	.490	.0095
.298	.648	.0011
.298	.794	-.0035
.396	.162	.0589
.396	.318	.0282
.396	.680	-.0074
.396	.886	-.0109
.497	.076	.0677
.497	.505	.0092
.497	.759	-.0074
.597	.256	.0328
.700	.257	.0003
.700	.684	-.0074
.797	.278	.0352
.895	.512	.0190
Lower surface		
.120	.033	.0095
.120	.362	.0109
.120	.538	-.0229
.120	.696	-.0279
.120	.941	-.0282
.297	.073	.0067
.297	.796	-.0384
.499	.089	-.0335
.499	.506	-.0310
.499	.768	-.0511
.597	.258	-.0310
.597	.577	-.0430
.697	.263	-.0715
.796	.768	-.0701

 $\alpha = -0.2; C_N = -0.0056$

$y/b/2$	x/c	C_p
Upper surface		
.118	.037	.0476
.118	.183	.0363
.118	.362	.0275
.118	.478	-.0116
.118	.700	-.0119
.118	.942	-.0095
.199	.055	.0363
.199	.251	.0194
.199	.367	.0110
.199	.616	-.0194
.199	.884	-.0207
.298	.066	.0307
.298	.216	.0208
.298	.490	-.0151
.298	.648	-.0225
.298	.794	-.0246
.396	.162	.0356
.396	.318	.0152
.396	.680	-.0278
.396	.886	-.0278
.497	.076	.0275
.497	.505	-.0116
.497	.759	-.0278
.597	.256	.0046
.700	.257	-.0285
.700	.684	-.0359
.797	.278	-.0053
.895	.512	-.0271
Lower surface		
.120	.033	.0476
.120	.362	.0279
.120	.538	-.0119
.120	.696	-.0179
.120	.941	-.0194
.297	.073	.0395
.297	.796	-.0254
.499	.089	.0342
.499	.506	-.0158
.499	.768	-.0352
.597	.258	.0184
.597	.577	-.0250
.697	.263	.0032
.796	.768	-.0458

TABLE IV. - PRESSURE DISTRIBUTION ON A 74° SWEPT FLAT ARROW WING MODEL - Continued(e) $M = 2.65$ - Continued $\alpha = 0.8; C_N = 0.0195$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Upper surface		

.118	.037	.0244
.118	.183	.0198
.118	.362	.0145
.118	.478	-.0190
.118	.700	-.0183
.118	.942	-.0183
.199	.055	.0198
.199	.251	.0131
.199	.367	.0015
.199	.616	-.0296
.199	.884	-.0292
.298	.066	.0138
.298	.216	.0071
.298	.490	-.0236
.298	.648	-.0327
.298	.794	-.0331
.396	.162	.0085
.396	.318	-.0084
.396	.680	-.0377
.396	.886	-.0377
.497	.076	.0085
.497	.505	-.0218
.497	.759	-.0377
.597	.256	-.0077
.700	.257	-.0475
.700	.684	-.0475
.797	.278	-.0254
.895	.512	-.0486

Lower surface

.120	.033	.0564
.120	.362	.0339
.120	.538	-.0042
.120	.696	-.0134
.120	.941	-.0162
.297	.073	.0529
.297	.796	-.0215
.499	.089	.0480
.499	.506	-.0088
.499	.768	-.0282
.597	.258	.0289
.597	.577	-.0155
.697	.263	.0226
.796	.768	-.0331

 $\alpha = 2.0; C_N = 0.0481$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Upper surface		

.118	.037	.0096
.118	.183	.0152
.118	.362	.0067
.118	.478	-.0229
.118	.700	-.0292
.118	.942	-.0275
.199	.055	-.0123
.199	.251	.0032
.199	.367	-.0056
.199	.616	-.0348
.199	.884	-.0352
.298	.066	-.0299
.298	.216	-.0010
.298	.490	-.0243
.298	.648	-.0377
.298	.794	-.0394
.396	.162	-.0162
.396	.318	-.0179
.396	.680	-.0486
.396	.886	-.0489
.497	.076	-.0511
.497	.505	-.0306
.497	.759	-.0493
.597	.256	-.0486
.597	.577	-.0408
.700	.684	-.0581
.797	.278	-.0733
.895	.512	-.0902

Lower surface

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Lower surface		

.120	.033	.0698
.120	.362	.0399
.120	.538	.0022
.120	.696	-.0091
.120	.941	-.0091
.297	.073	.0649
.297	.796	-.0098
.499	.089	.0727
.499	.506	.0053
.499	.768	-.0074
.597	.258	.0441
.597	.577	.0007
.697	.263	.0367
.796	.768	-.0169

TABLE IV. - PRESSURE DISTRIBUTION ON A 74° SWEPT FLAT ARROW WING MODEL - Continued

(e) $M = 2.65$ - Continued $\alpha = 3.0; C_N = 0.0692$ $\alpha = 4.2; C_N = 0.0979$

$y/b/2$	x/c	C_p
Upper surface		
.118	.037	-.0317
.118	.183	.0036
.118	.362	-.0028
.118	.478	-.0331
.118	.700	-.0338
.118	.942	-.0327
.199	.055	-.0408
.199	.251	-.0038
.199	.367	-.0126
.199	.616	-.0426
.199	.884	-.0423
.298	.066	-.0595
.298	.216	-.0197
.298	.490	-.0366
.298	.648	-.0430
.298	.794	-.0468
.396	.162	-.0634
.396	.318	-.0444
.396	.680	-.0599
.396	.886	-.0606
.497	.076	-.0786
.497	.505	-.0585
.497	.759	-.0578
.597	.256	-.0884
.700	.257	-.1085
.700	.684	-.0923
.797	.278	-.1022
.895	.512	-.1117
Lower surface		
.120	.033	.0815
.120	.362	.0526
.120	.538	.0131
.120	.696	.0057
.120	.941	-.0014
.297	.073	.0762
.297	.796	.0011
.499	.089	.0874
.499	.506	.0159
.499	.768	.0015
.597	.258	.0614
.597	.577	.0127
.697	.263	.0487
.796	.768	-.0038

$y/b/2$	x/c	C_p
Upper surface		
.118	.037	-.0624
.118	.183	-.0053
.118	.362	-.0098
.118	.478	-.0430
.118	.700	-.0416
.118	.942	-.0412
.199	.055	-.0627
.199	.251	-.0113
.199	.367	-.0211
.199	.616	-.0507
.199	.884	-.0500
.298	.066	-.0718
.298	.216	-.0722
.298	.490	-.0437
.298	.648	-.0535
.298	.794	-.0549
.396	.162	-.0757
.396	.318	-.0793
.396	.680	-.0645
.396	.886	-.0662
.497	.076	-.0870
.497	.505	-.0824
.497	.759	-.0817
.597	.256	-.0934
.700	.257	-.1223
.700	.684	-.1127
.797	.278	-.1177
.895	.512	-.1096
Lower surface		
.120	.033	.1037
.120	.362	.0727
.120	.538	.0184
.120	.696	.0075
.120	.941	.0075
.297	.073	.0984
.297	.796	.0064
.499	.089	.0987
.499	.506	.0219
.499	.768	.0011
.597	.258	.0691
.597	.577	.0212
.697	.263	.0628
.796	.768	.0099

TABLE IV. - PRESSURE DISTRIBUTION ON A 74° SWEEP FLAT ARROW WING MODEL - Continued

(e) $M = 2.65$ - Continued $\alpha = 5.2; C_N = 0.1234$

$y/b/2$	x/c	C_p
Upper surface		
.118	.037	-.0819
.118	.183	-.0101
.118	.362	-.0175
.118	.478	-.0439
.118	.700	-.0509
.118	.942	-.0506
.199	.055	-.0847
.199	.251	-.0404
.199	.367	-.0545
.199	.616	-.0548
.199	.884	-.0548
.298	.066	-.1020
.298	.216	-.1020
.298	.490	-.0471
.298	.648	-.0464
.298	.794	-.0555
.396	.162	-.1020
.396	.318	-.1023
.396	.680	-.0921
.396	.886	-.0745
.497	.076	-.1157
.497	.505	-.1118
.497	.759	-.1118
.597	.256	-.1171
.700	.257	-.1266
.700	.684	-.1294
.797	.278	-.1224
.895	.512	-.1087
Lower surface		
.120	.033	.1032
.120	.362	.0705
.120	.538	.0318
.120	.696	.0296
.120	.941	.0201
.297	.073	.1130
.297	.796	.0212
.499	.089	.1123
.499	.506	.0399
.499	.768	.0230
.597	.258	.0824
.597	.577	.0335
.697	.263	.0736
.796	.768	.0230

 $\alpha = 6.3; C_N = 0.1471$

$y/b/2$	x/c	C_p
Upper surface		
.118	.037	-.0949
.118	.183	-.0080
.118	.362	-.0235
.118	.478	-.0460
.118	.700	-.0464
.118	.942	-.0464
.199	.055	-.0992
.199	.251	-.0787
.199	.367	-.0443
.199	.616	-.0608
.199	.884	-.0604
.298	.066	-.1069
.298	.216	-.1069
.298	.490	-.0703
.298	.648	-.0555
.298	.794	-.0608
.396	.162	-.1175
.396	.318	-.1185
.396	.680	-.1097
.396	.886	-.1048
.497	.076	-.1238
.497	.505	-.1167
.497	.759	-.1266
.597	.256	-.1245
.700	.257	-.1358
.700	.684	-.1386
.797	.278	-.1315
.895	.512	-.1139
Lower surface		
.120	.033	.1264
.120	.362	.0930
.120	.538	.0476
.120	.696	.0469
.120	.941	.0289
.297	.073	.1440
.297	.796	.0469
.499	.089	.1313
.499	.506	.0458
.499	.768	.0458
.597	.258	.1007
.597	.577	.0536
.697	.263	.0926
.796	.768	.0406

TABLE IV. - PRESSURE DISTRIBUTION ON A 74° SWEPT FLAT ARROW WING MODEL - Continued

(e) $M = 2.65$ - Concluded $\alpha = 7.4; C_N = 0.1744$ $\alpha = 8.6; C_N = 0.2002$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p	$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Upper surface					
Lower surface					
.118	.037	-.1090	.118	.037	-.113
.118	.183	-.0675	.118	.183	-.059
.118	.362	-.0295	.118	.362	-.034
.118	.478	-.0591	.118	.478	-.062
.118	.700	-.0587	.118	.700	-.062
.118	.942	-.0576	.118	.942	-.067
.199	.055	-.1171	.199	.055	-.116
.199	.251	-.1066	.199	.251	-.122
.199	.367	-.0805	.199	.367	-.077
.199	.616	-.0626	.199	.616	-.060
.199	.884	-.0622	.199	.884	-.071
.298	.066	-.1150	.298	.066	-.129
.298	.216	-.1231	.298	.216	-.133
.298	.490	-.1154	.298	.490	-.142
.298	.648	-.0689	.298	.648	-.098
.298	.794	-.0636	.298	.794	-.080
.396	.162	-.1319	.396	.162	-.128
.396	.318	-.1305	.396	.318	-.141
.396	.680	-.1340	.396	.680	-.155
.396	.886	-.1210	.396	.886	-.153
.497	.076	-.1234	.497	.076	-.131
.497	.505	-.1248	.497	.505	-.140
.497	.759	-.1421	.497	.759	-.150
.597	.256	-.1333	.597	.256	-.143
.700	.257	-.1393	.700	.257	-.144
.700	.684	-.1431	.700	.684	-.149
.797	.278	-.1386	.797	.278	-.147
.895	.512	-.1160	.895	.512	-.124
Lower surface					
.120	.033	.1437	.120	.033	.149
.120	.362	.1106	.120	.362	.118
.120	.538	.0557	.120	.538	.066
.120	.696	.0645	.120	.696	.064
.120	.941	.0515	.120	.941	.055
.297	.073	.1556	.297	.073	.164
.297	.796	.0455	.297	.796	.053
.499	.089	.1444	.499	.089	.141
.499	.506	.0754	.499	.506	.074
.499	.768	.0451	.499	.768	.049
.597	.258	.1187	.597	.258	.127
.597	.577	.0701	.597	.577	.079
.697	.263	.1078	.697	.263	.113
.796	.768	.0578	.796	.768	.062

TABLE IV. - PRESSURE DISTRIBUTION ON A 74° SWEPT FLAT ARROW WING MODEL - Continued

(f) **M = 2.80**

$$\alpha = -1.8; C_N = -0.0387$$

$$\alpha = 0.3; \quad C_N = 0.0077$$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Upper surface		
•118	•037	•0497
•118	•183	•0328
•118	•362	•0259
•118	•478	•0096
•118	•700	•0085
•118	•942	•0085
•199	•055	•0497
•199	•251	•0274
•199	•367	•0186
•199	•616	•0114
•199	•884	•0118
•298	•066	•0456
•298	•216	•0277
•298	•490	•0034
•298	•648	•0103
•298	•794	•0176
•396	•162	•0376
•396	•318	•0120
•396	•680	•0279
•396	•886	•0301
•497	•076	•0391
•497	•505	•0059
•497	•759	•0242
•597	•256	•0153
•700	•257	•0140
•700	•684	•0253
•797	•278	•0171
•895	•512	•0036

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
Upper surface		
.118	.037	.0233
.118	.183	.0113
.118	.362	.0102
.118	.478	-.0238
.118	.700	-.0238
.118	.942	-.0238
.199	.055	.0219
.199	.251	.0058
.199	.367	.0025
.199	.616	-.0290
.199	.884	-.0330
.298	.066	.0120
.298	.216	.0120
.298	.490	-.0194
.298	.648	.0038
.298	.794	-.0345
.396	.162	.0039
.396	.318	-.0103
.396	.680	-.0425
.396	.886	-.0425
.497	.076	.0050
.497	.505	-.0238
.497	.759	-.0425
.597	.256	-.0099
.700	.257	-.0436
.700	.684	-.0432
.797	.278	-.0154
.895	.512	-.0341

Lower surface		
• 120	.033	.0003
• 120	.362	-.0004
• 120	.538	-.0308
• 120	.696	-.0377
• 120	.941	-.0377
• 499	.073	.0092
• 297	.796	-.0487
• 499	.089	-.0374
• 499	.506	.0363
• 499	.768	-.0480
• 597	.258	-.0311
507		

Lower surface	
• 120	• 696
• 120	• 941
• 120	• 073
• 297	• 796
• 297	• 089
• 499	• 506
• 499	• 768
• 597	• 258
• 597	• 577
• 697	• 263
• 796	• 768

TABLE IV. - PRESSURE DISTRIBUTION ON A 74° SWEPT FLAT ARROW WING MODEL - Continued(f) $M = 2.80$ - Continued $\alpha = 1.4; C_N = 0.0306$

$y/b/2$	x/c	C_p
Upper surface		
.118	.037	-.0023
.118	.183	-.0030
.118	.362	-.0030
.118	.478	-.0311
.118	.700	-.0304
.118	.942	-.0304
.199	.055	-.0107
.199	.251	-.0034
.199	.367	-.0147
.199	.616	-.0392
.199	.884	-.0429
.298	.066	-.0132
.298	.216	-.0129
.298	.490	-.0311
.298	.648	-.0311
.298	.794	-.0436
.396	.162	-.0162
.396	.318	-.0180
.396	.680	-.0524
.396	.886	-.0524
.497	.076	-.0308
.497	.505	-.0311
.497	.759	-.0527
.597	.256	-.0257
.700	.257	-.0608
.700	.684	-.0557
.797	.278	-.0527
.895	.512	-.0718
Lower surface		
.120	.033	.0559
.120	.362	.0285
.120	.538	-.0089
.120	.696	-.0114
.120	.941	-.0187
.297	.073	.0519
.297	.796	-.0202
.499	.089	.0522
.499	.506	-.0048
.499	.768	-.0176
.597	.258	.0318
.597	.577	-.0099
.697	.263	.0241
.796	.768	-.0257

 $\alpha = 2.5; C_N = 0.0547$

$y/b/2$	x/c	C_p
Upper surface		
.118	.037	-.0322
.118	.183	-.0074
.118	.362	-.0089
.118	.478	-.0385
.118	.700	-.0385
.118	.942	-.0407
.199	.055	-.0396
.199	.251	-.0110
.199	.367	-.0194
.199	.616	-.0480
.199	.884	-.0502
.298	.066	-.0586
.298	.216	-.0147
.298	.490	-.0355
.298	.648	-.0480
.298	.794	-.0557
.396	.162	-.0516
.396	.318	-.0396
.396	.680	-.0567
.396	.886	-.0611
.497	.076	-.0652
.497	.505	-.0447
.497	.759	-.0604
.597	.256	-.0710
.700	.257	-.0951
.700	.684	-.0787
.797	.278	-.0908
.895	.512	-.1028
Lower surface		
.120	.033	.0661
.120	.362	.0372
.120	.538	-.0012
.120	.696	-.0019
.120	.941	-.0121
.297	.073	.0621
.297	.796	-.0118
.499	.089	.0625
.499	.506	-.0007
.499	.768	-.0107
.597	.258	.0427
.597	.577	-.0023
.697	.263	.0336
.796	.768	-.0162

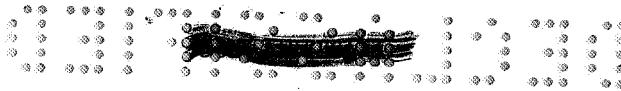


TABLE IV. - PRESSURE DISTRIBUTION ON A 74° SWEPT FLAT ARROW WING MODEL - Continued

(f) $M = 2.80$ - Continued $\alpha = 3.6; C_N = 0.0781$

$y/b/2$	x/c	C_p
Upper surface		
118	.037	-.0527
118	.183	-.0092
118	.362	-.0176
118	.478	-.0483
118	.700	-.0480
118	.942	-.0480
199	.055	-.0553
199	.251	-.0154
199	.367	-.0268
199	.616	-.0564
199	.884	-.0590
298	.066	-.0769
298	.216	-.0604
298	.490	-.0454
298	.648	-.0553
298	.794	-.0593
396	.162	-.0769
396	.318	-.0593
396	.680	-.0633
396	.886	-.0666
497	.076	-.0823
497	.505	-.0630
497	.759	-.0597
597	.256	-.0823
,700	.257	-.1127
,700	.684	-.1061
,797	.278	-.1079
<u>,895</u>	<u>.512</u>	<u>-.1069</u>
Lower surface		
.120	.033	.0807
.120	.362	.0508
.120	.538	.0021
.120	.696	.0014
.120	.941	.0014
.297	.073	.0771
.297	.796	-.0023
.499	.089	.0830
.499	.506	.0186
.499	.768	-.0070
.597	.258	.0559
.597	.577	.0094
.697	.263	.0504
<u>.796</u>	<u>.768</u>	<u>-.0001</u>

 $\alpha = 4.7; C_N = 0.1016$

$y/b/2$	x/c	C_p
Upper surface		
118	.037	-.0714
118	.183	-.018
118	.362	-.022
118	.478	-.0491
118	.700	-.0531
118	.942	-.052
199	.055	-.076
199	.251	-.028
199	.367	-.031
199	.616	-.060
199	.884	-.0621
298	.066	-.0881
298	.216	-.0881
298	.490	-.053
298	.648	-.052
298	.794	-.064
396	.162	-.088
396	.318	-.088
396	.680	-.078
396	.886	-.078
497	.076	-.094
497	.505	-.097
497	.759	-.095
597	.256	-.107
700	.257	-.1204
700	.684	-.1186
797	.278	-.1145
895	.512	-.1021
Lower surface		
120	.033	.0862
120	.362	.0541
120	.538	.0142
120	.696	.0007
120	.941	.0003
297	.073	.0910
297	.796	.0050
499	.089	.0935
499	.506	.0222
499	.768	.0036
597	.258	.0679
597	.577	.0197
697	.263	.0603
796	.768	.0091

CONT.



TABLE IV. - PRESSURE DISTRIBUTION ON A 74° SWEPT FLAT ARROW WING MODEL - Continued

(f) M = 2.80 - Continued

 $a = 5.8; C_N = 0.1272$ $a = 6.9; C_N = 0.1487$

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
-----------------	---------------	-------

Upper surface

.118	.037	-.0881
.118	.183	-.0165
.118	.362	-.0274
.118	.478	-.0552
.118	.700	-.0545
.118	.942	-.0548
.199	.055	-.0650
.199	.251	-.0650
.199	.367	-.0650
.199	.616	-.0676
.199	.884	-.0676
.298	.066	-.0935
.298	.216	-.0950
.298	.490	-.0691
.298	.648	-.0687
.298	.794	-.0687
.396	.162	-.1063
.396	.318	-.1070
.396	.680	-.0986
.396	.886	-.0986
.497	.076	-.1176
.497	.505	-.1111
.497	.759	-.1111
.597	.256	-.1187
.700	.257	-.1271
.700	.684	-.1271
.797	.278	-.1209
.895	.512	-.1034

Lower surface

.120	.033	.1080
.120	.362	.0771
.120	.538	.0354
.120	.696	.0167
.120	.941	.0164
.297	.073	.1160
.297	.796	.0222
.499	.089	.1145
.499	.506	.0383
.499	.768	.0204
.597	.258	.0846
.597	.577	.0375
.697	.263	.0786
.796	.768	.0256

$\frac{y}{b/2}$	$\frac{x}{c}$	C_p
-----------------	---------------	-------

Upper surface

.118	.037	-.1015
.118	.183	-.0311
.118	.362	-.0362
.118	.478	-.0570
.118	.700	-.0570
.118	.942	-.0574
.199	.055	-.1038
.199	.251	-.0961
.199	.367	-.0694
.199	.616	-.0591
.199	.884	-.0716
.298	.066	-.1136
.298	.216	-.1136
.298	.490	-.1107
.298	.648	-.0906
.298	.794	-.0735
.396	.162	-.1202
.396	.318	-.1220
.396	.680	-.1220
.396	.886	-.1216
.497	.076	-.1173
.497	.505	-.1209
.497	.759	-.1245
.597	.256	-.1282
.700	.257	-.1344
.700	.684	-.1351
.797	.278	-.1326
.895	.512	-.1085

Lower surface

.120	.033	.1153
.120	.362	.0806
.120	.538	.0419
.120	.696	.0364
.120	.941	.0291
.297	.073	.1266
.297	.796	.0321
.499	.089	.1208
.499	.506	.0536
.499	.768	.0328
.597	.258	.0949
.597	.577	.0481
.697	.263	.0894
.796	.768	.0384

TABLE IV. - PRESSURE DISTRIBUTION ON A 74° SWEPT FLAT ARROW WING MODEL - Concluded

(f) $M = 2.80$ - Concluded $\alpha = 7.9; C_N = 0.1704$

$y/b/2$	x/c	C_p
---------	-------	-------

Upper surface

.118	.037	-.01052
.118	.183	-.0723
.118	.362	-.0413
.118	.478	-.0668
.118	.700	-.0687
.118	.942	-.0690
.199	.055	-.1125
.199	.251	-.0924
.199	.367	-.0785
.199	.616	-.0716
.199	.884	-.0774
.298	.066	-.1209
.298	.216	-.1205
.298	.490	-.1205
.298	.648	-.1205
.298	.794	-.0895
.396	.162	-.1187
.396	.318	-.1278
.396	.680	-.1351
.396	.886	-.1325
.497	.076	-.1304
.497	.505	-.1274
.497	.759	-.1282
.597	.256	-.1307
.700	.257	-.1384
.700	.684	-.1417
.797	.278	-.1347
.895	.512	-.1099

Lower surface

.120	.033	.1314
.120	.362	.0985
.120	.538	.0522
.120	.696	.0496
.120	.941	.0423
.297	.073	.1449
.297	.796	.0420
.499	.089	.1358
.499	.506	.0675
.499	.768	.0427
.597	.258	.1099
.597	.577	.0624
.697	.263	.1055
.796	.768	.0533

 $\alpha = 9.0; C_N = 0.1940$

$y/b/2$	x/c	C_p
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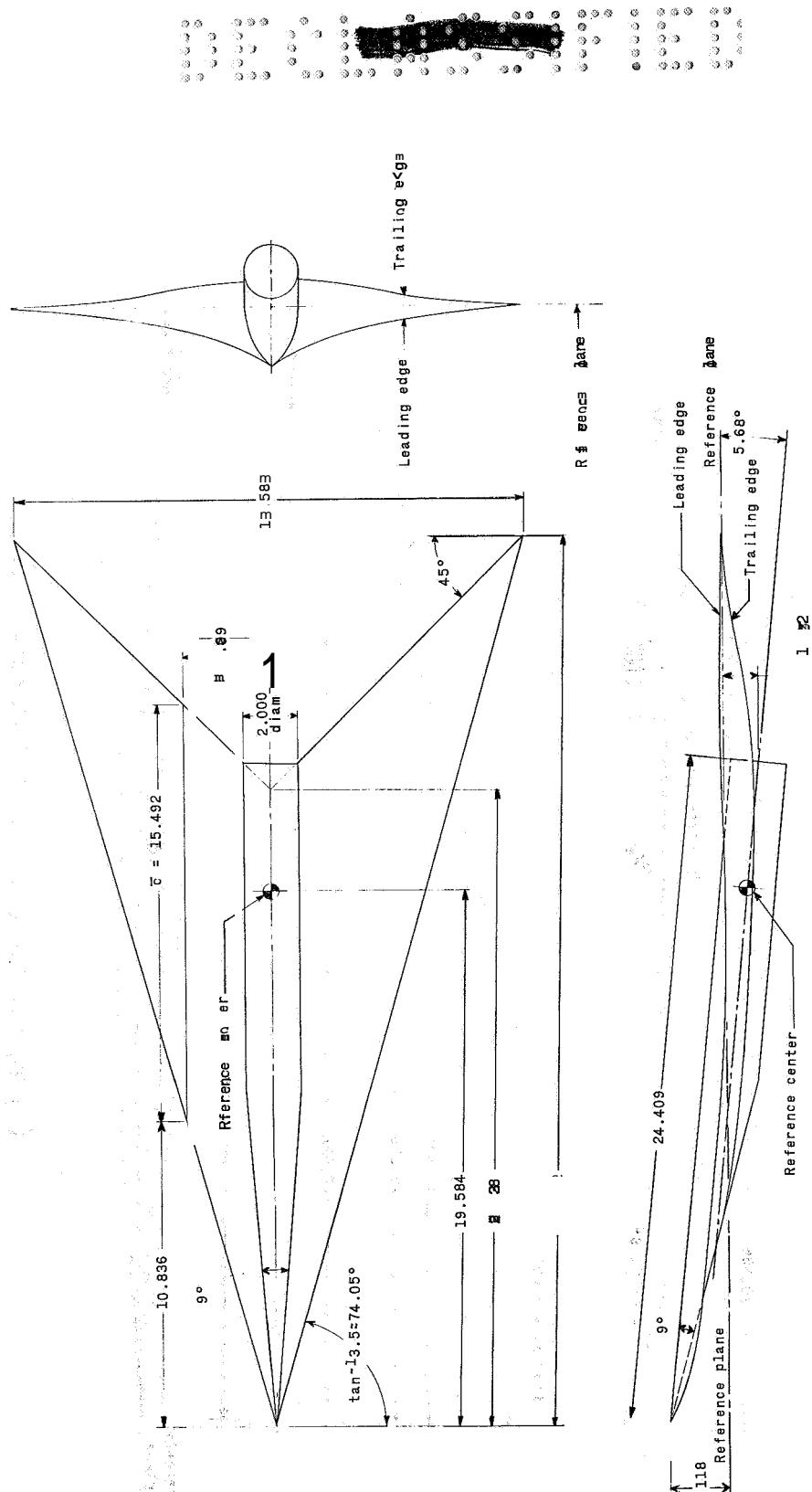
Upper surface

.118	.478	-.1158
.118	.700	-.1161
.118	.942	-.0548
.199	.055	-.0760
.199	.251	-.1154
.199	.367	-.1161
.199	.616	-.0775
.199	.884	-.0869
.298	.066	-.1235
.298	.216	-.1275
.298	.490	-.1395
.298	.648	-.1308
.298	.794	-.1132
.396	.162	-.1246
.396	.318	-.1381
.396	.680	-.1497
.396	.886	-.1490
.497	.076	-.1395
.497	.505	-.1344
.497	.759	-.1377
.597	.256	-.1399
.700	.257	-.1381
.700	.684	-.1443
.797	.278	-.1377
.895	.512	-.1118

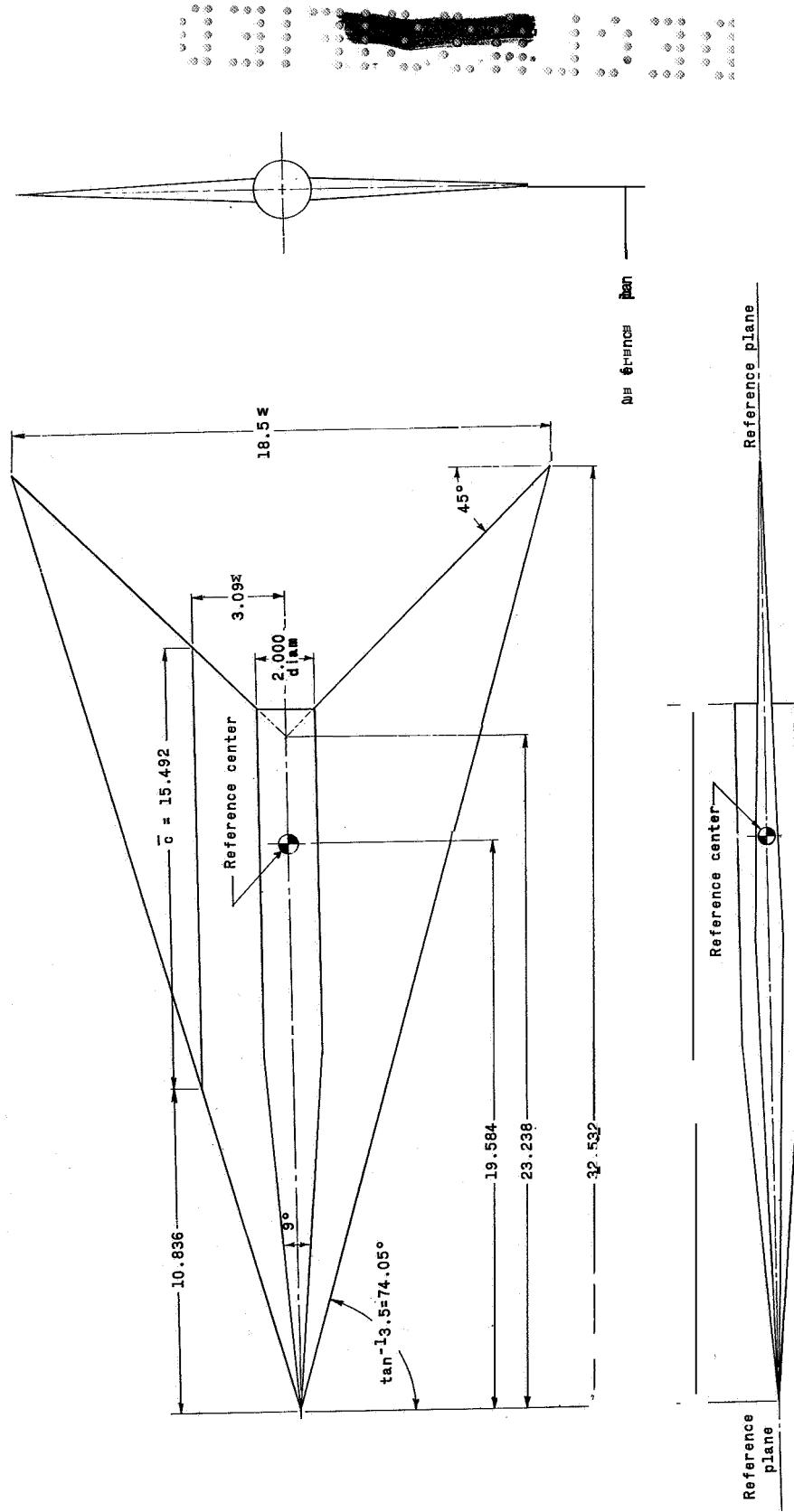
Lower surface

$y/b/2$	x/c	C_p
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.120	.033	.1504
.120	.362	.1178
.120	.538	.0631
.120	.696	.0613
.120	.941	.0547
.297	.073	.1631
.297	.796	.0510
.499	.089	.1438
.499	.506	.0806
.499	.768	.0536
.597	.258	.1241
.597	.577	.0740
.697	.263	.1113
.796	.768	.0609



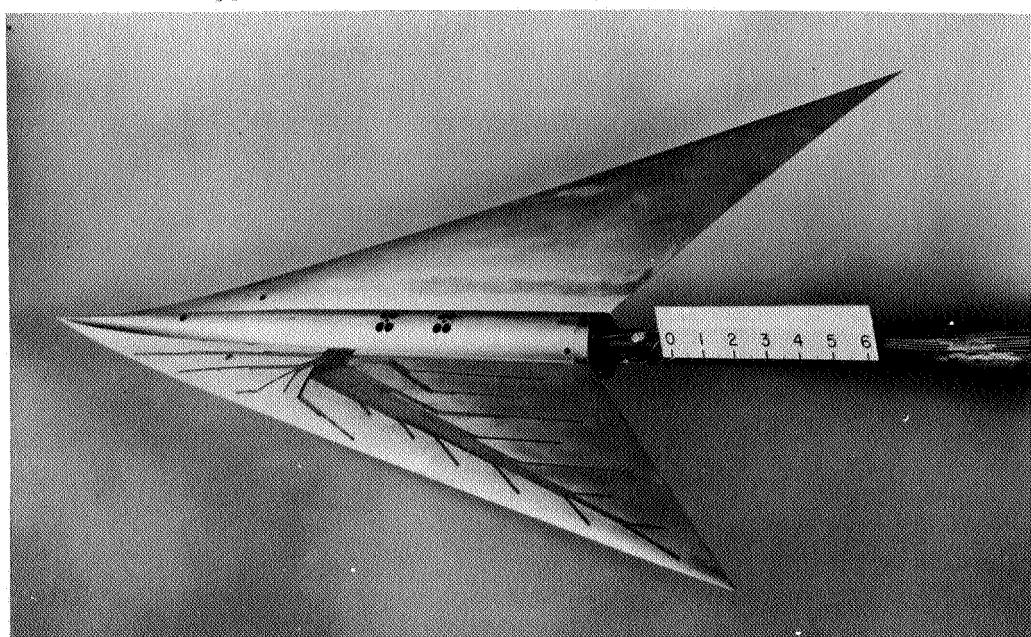
(a) Three-view drawing of cambered- and twisted-wing model.
Figure 1.- Model drawings. Dimensions are in inches unless otherwise noted.



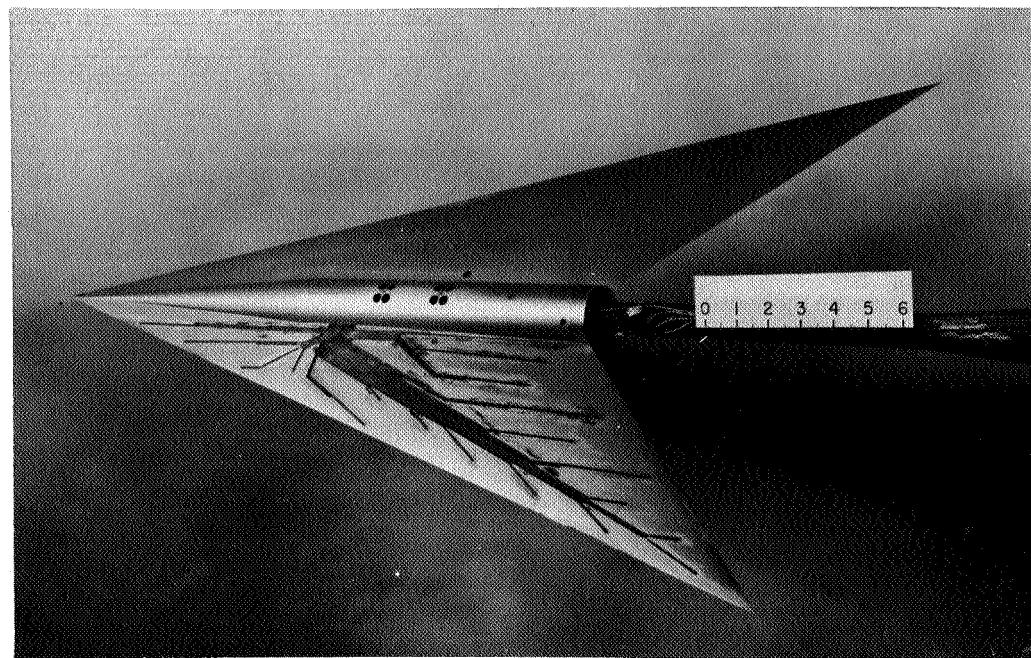
(b) Three-view drawing of flat-wing model.

Figure 1.- Concluded.

L-559



(a) Cambered and twisted wing.



(b) Flat wing.

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Figure 2. - Photographs of 74° swept arrow-wing pressure models.~~CONFIDENTIAL~~

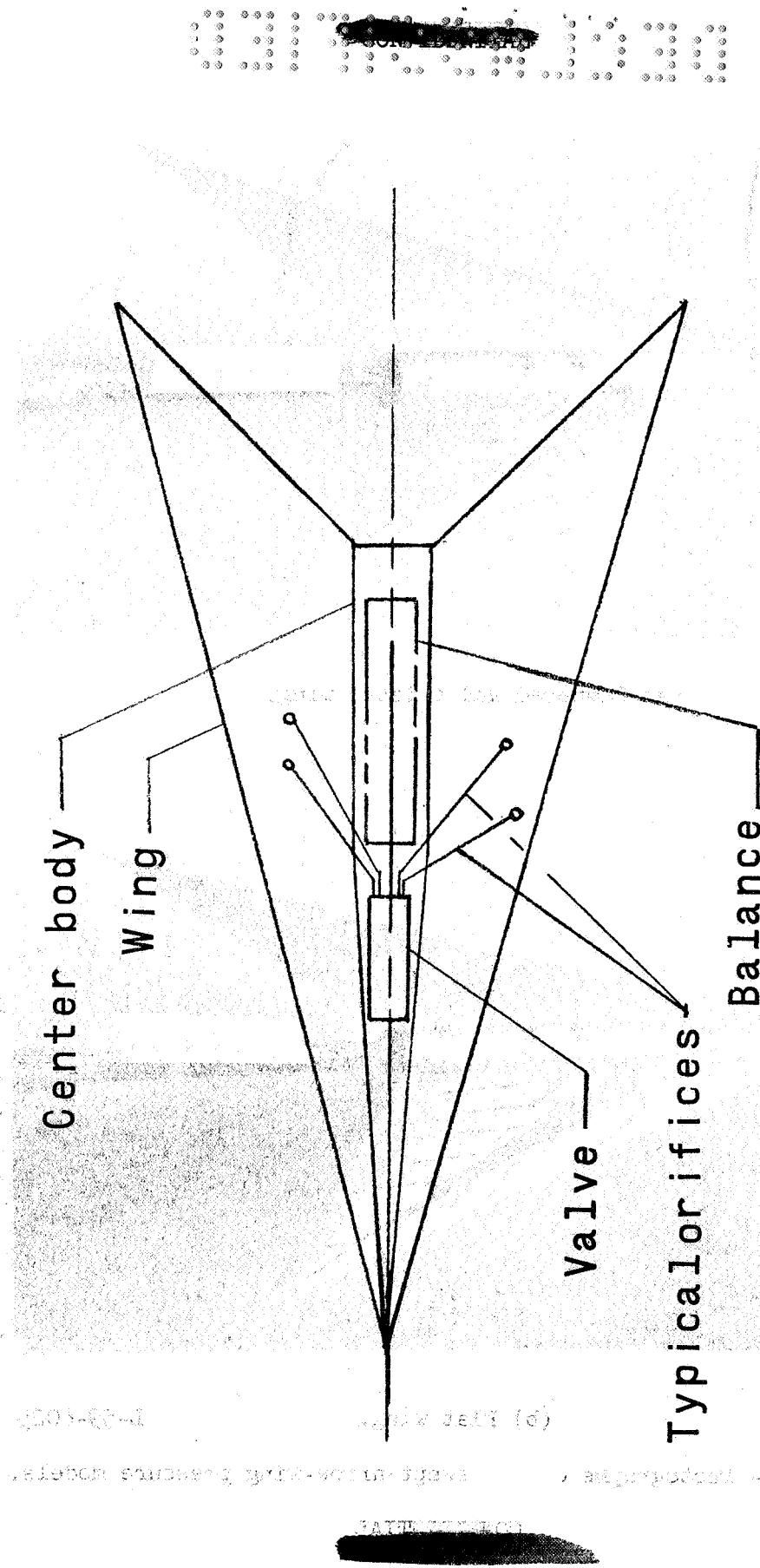


Figure 3.- Schematic drawing showing scanning-type pressure-sampling valve and balance in center-body housing.

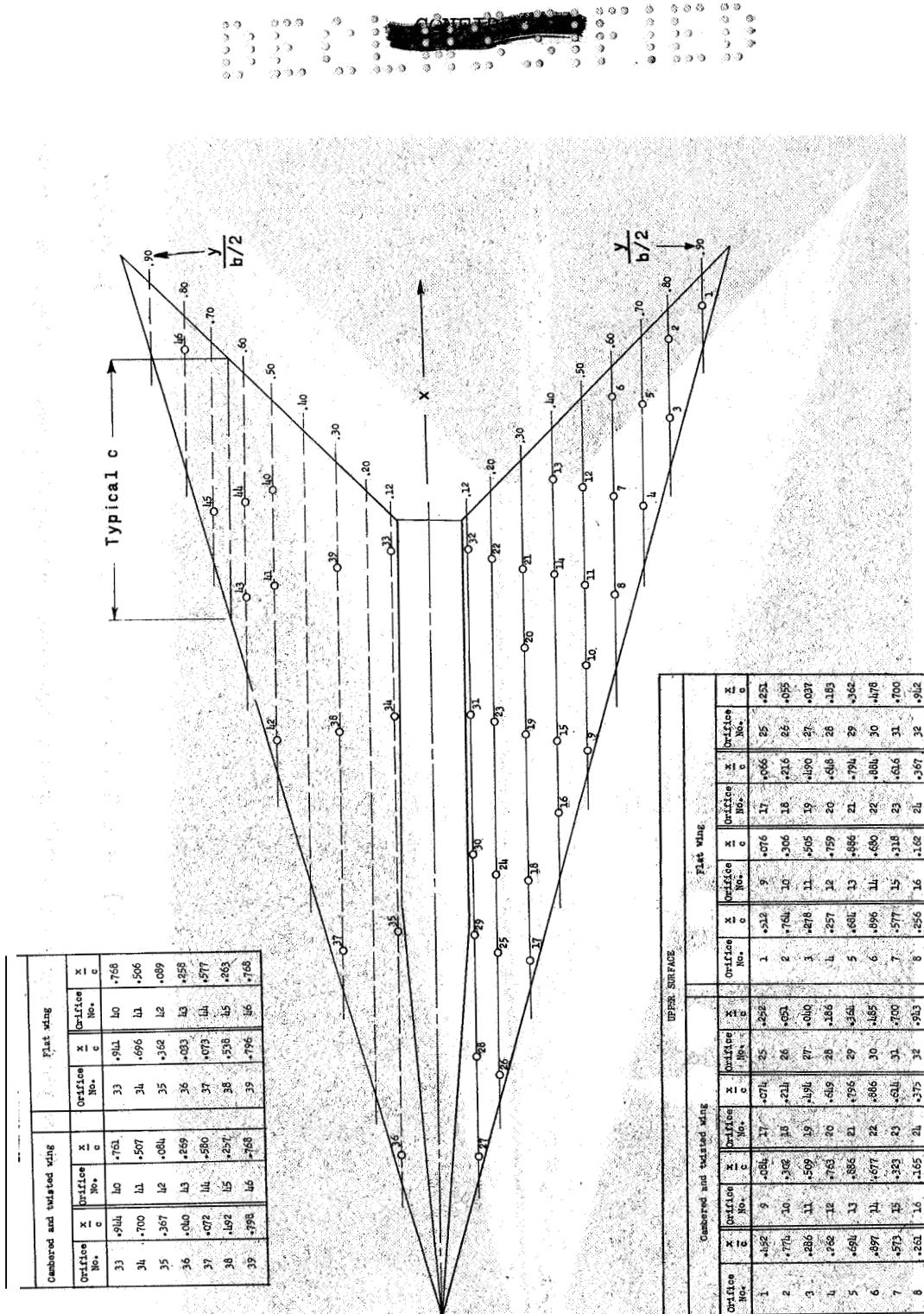
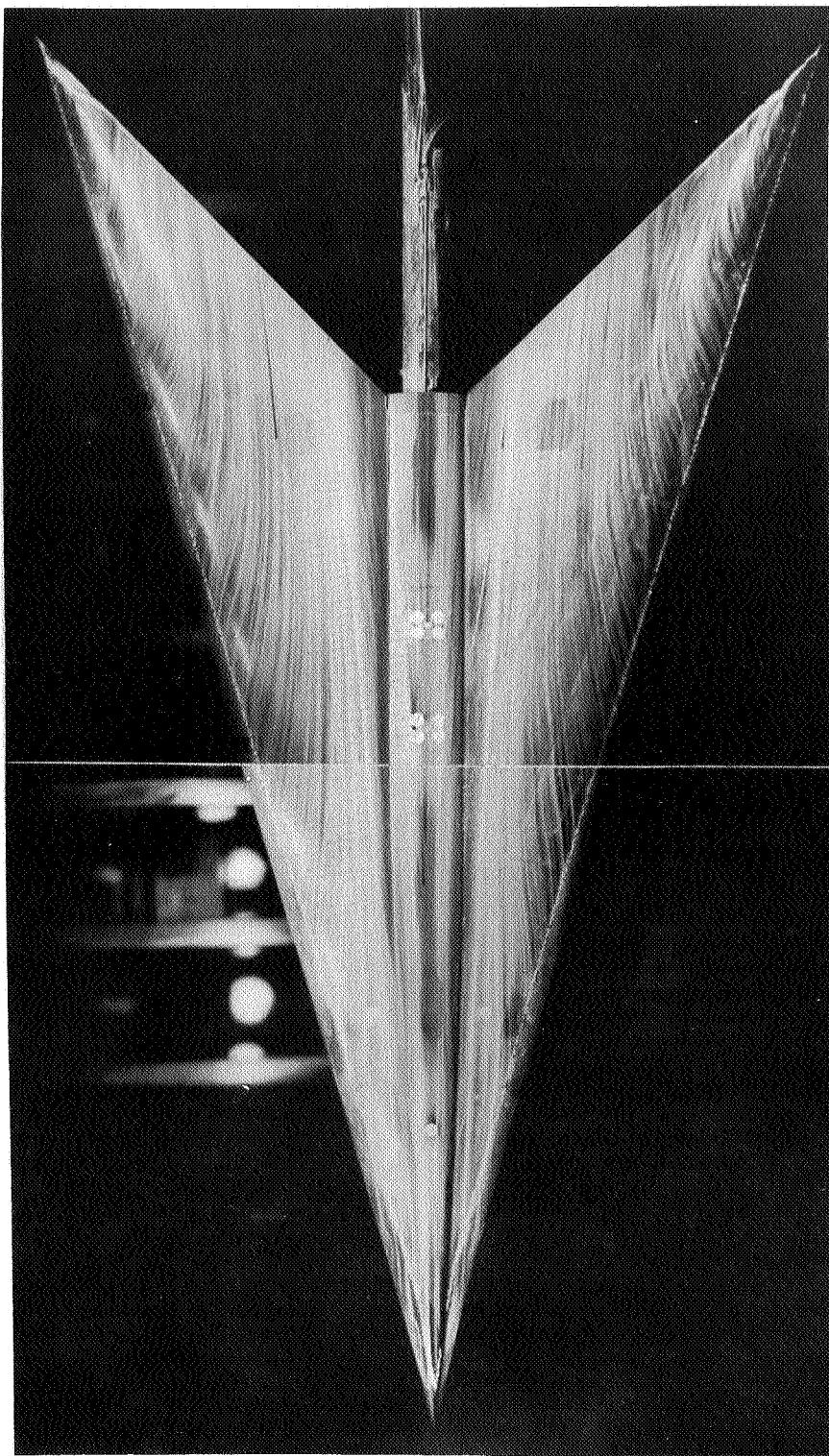
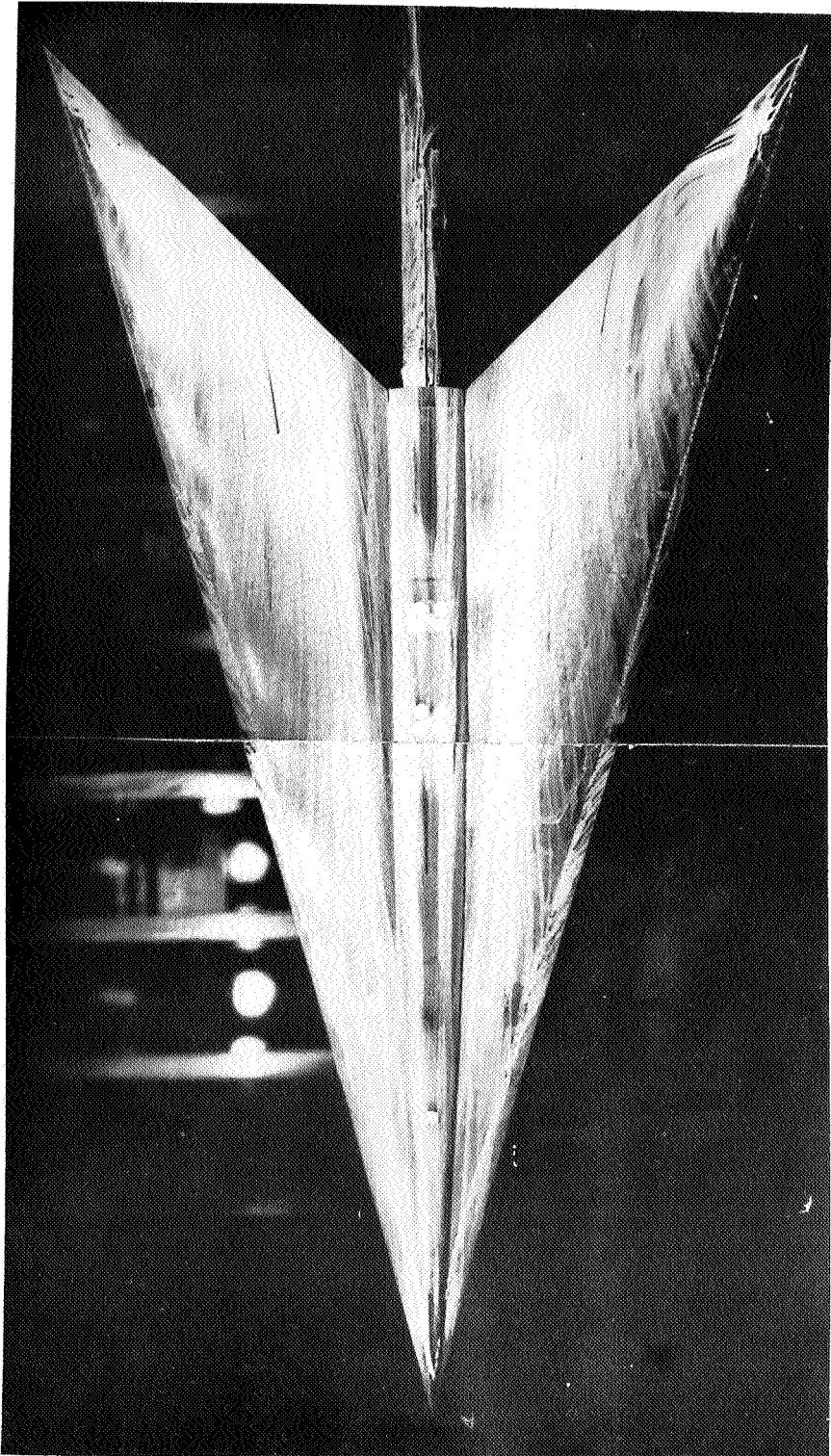


Figure 4 - Location of pressure orifices on 74° swept arrow-wing models.



(a) $\alpha = 0^\circ$; $C_N = 0.1130$ L-59-6026
Figure 5.- Oil-flow photographs of a 74° swept cambered and twisted arrow wing. $M = 2.50$.

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(b) $\alpha = 1.5^\circ$; $C_N = 0.1426$.
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Figure 5.- Concluded.

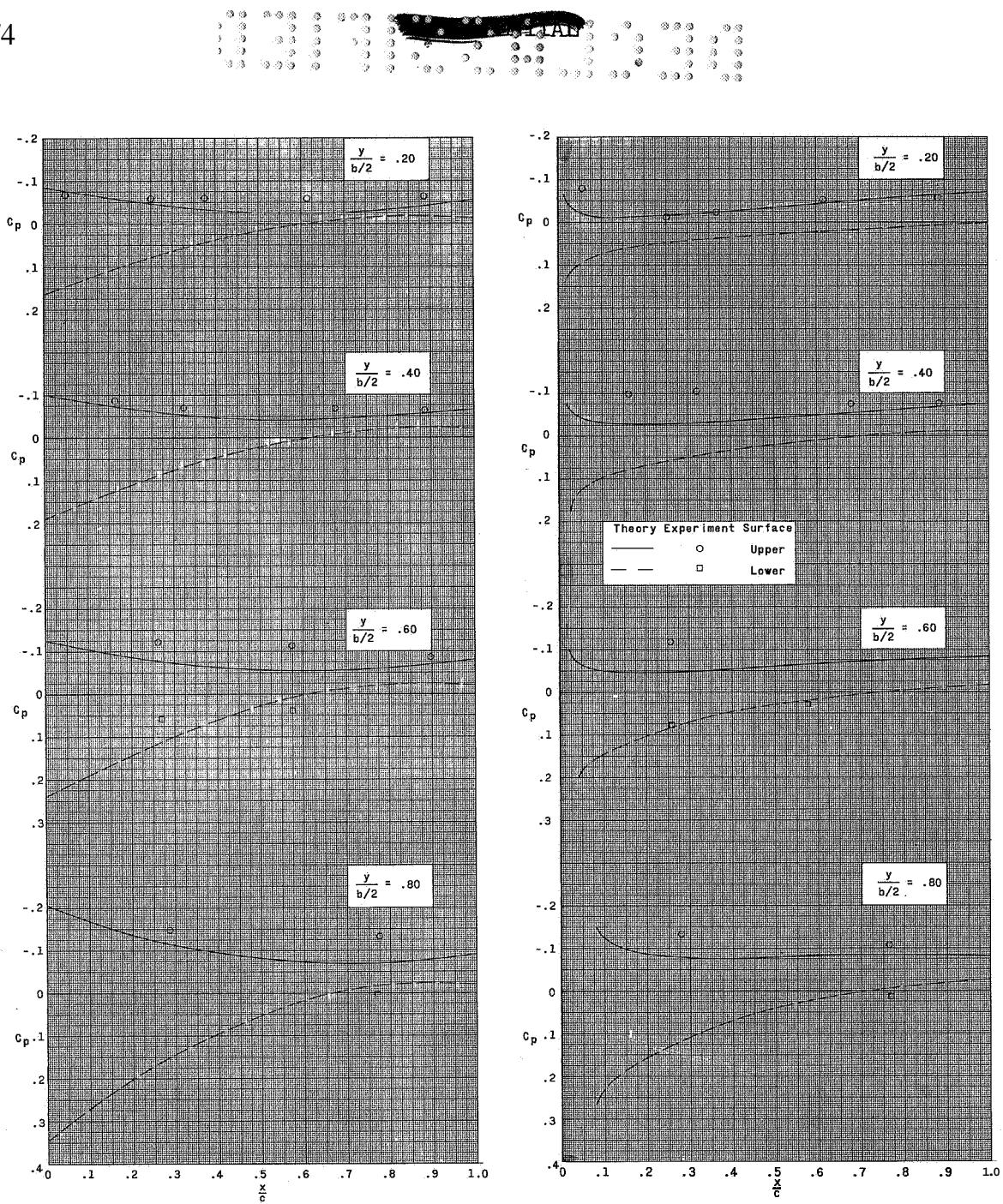
(a) Cambered and twisted wing;
 $\alpha = 0.1^\circ$; $C_N = 0.1130$.(b) Flat wing; $\alpha = 4.7^\circ$;
 $C_N = 0.1176$.

Figure 6.- Plot of pressure distribution on 74° swept arrow-wing models at $M = 2.50$.